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DOMESTIC MEDICINE.

THE

DOMESTIC PHYSICIAN;

OR

GUIDE TO FAMILIES:

CONTAINING

Directions for the Preservation of Health,

AND THE

Removal of Disease.

ALSO, A PLAIN AND ACCURATE DESCRIPTION

OF THE

Complaints generally incident to the Human Frame;

WITH AN ACCOUNT OF

THE MOST EFFICACIOUS REMEDIES,

AND DIRECTIONS HOW TO USE THEM.

CHIEFLY SELECTED FROM THE BEST AUTHORS,

AND MADE PLAIN TO

PERSONS OF COMMON UNDERSTANDING.

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PREFACE.

MEN seldom appreciate the value of health, till they more or less feel the want of it. Yet it is a subject which calls for due consideration, both as it respects individuals and families. Health may be termed the greatest blessing of a temporal nature, next to that of life itself. With this, the bounties of Providence are truly relished; without it, every thing is insipid or disgusting. With this blessing, a man may be active and useful in his station; without it, he must be more or less a heavy weight on society, and perhaps a burden to himself. If a poor man be afflicted, his family must deeply share with him in suffering. His earnings, when in health, were barely sufficient to make them comfortable; but in the time of his affliction, those supplies are entirely cut off. What a scene of sorrow and distress! An afflicted husband, a distressed wife, and children in want of food. Should the man recover, what time must elapse before he can possibly emerge from the expence and debt incurred through his affliction! It must therefore be a matter of great importance

to every person, whether single or married, but more especially to the latter, to do every thing possible to preserve health, or, if attacked by disease, to use the most proper means for its removal.

But how can poor people be expected to use proper means to preserve their health, when they know not what these means are? To the subject of anatomy, they are mostly utter strangers. The virtues of simples in medicine, they have not studied. The proper nature of compounds in the Pharmacopœia, is above their present knowledge. In the more remote counties of the United Kingdom, and indeed in almost every part of it, except the metropolis and chief towns, medical assistance is placed at such a distance from the major part of the inhabitants, and the expence of obtaining it so considerable, that the patient's case frequently becomes desperate, before proper aid can be procured; or, his circumstances may preclude his seeking it at all.

When we reflect on the precariousness of man's existence in this life; the multiplicity of dangers with which he is surrounded from the first moment of his being, and the construction of *the animal machine*, that *the means necessary for its preservation* are so many instruments wearing out its powers, and conducing to dissolution; when we consider that he is subject to an immense variety of diseases in every stage of life; diseases, which may cut him off even in the bloom and vigour of his age; it will not appear extraordinary, that many men of the first abilities have devoted themselves to the study of Medicine, in order to cure those maladies, or check their farther progress.

From the time of GALEN, who has upon this subject written most elaborately, to the present day, we have had various publications, calculated to instruct mankind in the art of preventing diseases, or shortening their duration; and of late years, these have been studiously conveyed in such a style, as to be readily intelligible to common understandings; so that each man might become, in some degree, his own physician. Such laudable undertakings merit the highest praise, and, if well-conducted, promise the most salutary consequences; for there can be no doubt that the modes of preventing diseases, shortening their duration, and warding off their evil tendencies by early assistance, are not only the easiest, but the most safe and pleasant.

What has been written on this subject may to many persons appear sufficient; and so it probably might be, were all men's constitutions similar; for the methods advised by many of those authors are extremely well calculated to answer the ends proposed, under the circumstance above specified: but there seems to be a very great defect in them, because they give little information how the variations of constitutions are to be distinguished, or in what cases the methods are properly to be altered; and without this, the prescribing of remedies can be considered little less than a species of quackery, by whatever authority it may be sanctioned.

The universality of any medicine is an idea too absurd for adoption, except by the dupes of quackery and imposition; and certainly appropriating remedies of the same specific nature, to one complaint, in all

constitutions, however dissimilar, is, at least, a branch of the same tree; for it is a fact, supported by the soundest experience, that what may be of great service to one constitution, may to another be highly detrimental, though labouring under the same disease. Simple as is this assertion, and of little consequence as it may be thought, I am persuaded that it is from ignorance, or inattention to this point, that people are apt to increase their maladies; nay, often make that, which would, if left to itself, have been mild, become dangerous, by applications not adapted to the particular nature of the constitution. For as the cure of diseases greatly depends on the knowledge of this particular, by which we can more certainly appropriate our remedies to the benefit of the afflicted, so doubtless must it be a more essential point in preventing, or shortening their duration; as in all our endeavours we must attempt to preserve the constitution in, or bring it to, a state of health. But, without such knowledge, how can this be accomplished by persons applying remedies, or fixing on any regimen?

In order, therefore, to attain this point, it appears necessary to give some account of the human machine, as far as relates to the structure, dependencies, and action, of its several parts, before we enter on the means to be used in particular cases; that every reader may be informed of the materials upon which his remedies and regimen are to operate; and hence proceed with some degree of regularity and certainty.

The human machine consists of Solids and Fluids, differently disposed for the purpose of supporting each other; so that as the parts are worn

away or destroyed by the actions necessary to support life, they may be again supplied; and this diminution and accession preserves a constant routine, until the animal, agreeable to the laws of nature, so called, is destroyed by its own exertions, the machine being rendered incapable of continuing its vital functions; and thus, without any preternatural cause, gradually descends to the grave.

In order to promote the different purposes allotted to the solids and fluids for the well-being of the human body, they are variously divided.

The SOLIDS, into bones, cartilages, ligaments, muscles with their tendons; nerves, vessels, glands, and membranes.

The FLUIDS, into blood, or gascous perspirable matter flowing through the skin insensibly, or in form of sweat; saliva, separated by the glands of the mouth and throat; ear-wax; mucus; liquids secreted in the stomach and bowels; cystic and hepatic biles, separated by the liver, lodged, in part, in the gall-bladder, in part emptied into the first bowel called duodenum; pancreatic juice, or that of the sweet-bread; urine; semen; liquor of the prostate gland, and that fluid which moistens the internal surface of all cavities; the mucilaginous liquid of the joints called synovia; tears; mucus of the nostrils; a white nutritious fluid separated from the food in the intestines, called chyle; lymph; fat; and marrow.

It will not be necessary to give prolix accounts of the different component parts of the human machine; but only such as may enable our readers so far to understand the anatomy of it, as to furnish ideas suffi-

cient to assist them in pursuing the future subject with some degree of accuracy.

In order to assist the families who may purchase this Work, a brief sketch of the human body, and of the difference of *Constitutions*, will be presented in the two first Numbers. This may serve as a guide in numerous cases, and help the reader to a prudent choice of proper means. It is the earnest wish of the COMPILER and PUBLISHERS of this Work, to help persons of common understanding, either to prevent diseases, or immediately, on their first attack, to use such Medicines as may at least lessen their violence, and help the patient till medical aid, if requisite, can be procured.

THE

DOMESTIC PHYSICIAN,

&c.

Of the Bones, Cartilages, and other component Parts of the Body.

THE BONES are the hardest and most solid parts of the human machine, calculated to support those which are soft and less firm, in all their motions and pressures; they are covered with a membrane, or thin skin, called periosteum, on account of its *covering the bone*, which is exquisitely sensible, being plentifully supplied with nerves and blood-vessels. The external parts of bones are commonly more compact than the inner parts; and are formed of plates, joined together by transverse fibres; their internal parts are spongy and cellular, in which is contained marrow, within membranous bags, filling up the cells; this marrow, being more or less distributed through all the bones, and transuding through their plates and fibres, makes them less brittle: the bones are supplied both within and without with blood-vessels and nerves.

CARTILAGES, vulgarly called GRISTLES, are solid, smooth, white, elastic substances, between the hardness of a bone and that of a ligament, *(see ligament below)* covered with a membrane called perichon-

drium, because it *covers a cartilage*, which is akin to the periosteum of the bones; they serve to make the bones, whose extremities or ends they cover, move freely in the joints: they limit the growth of bones, as to their length, by hindering the bony fibres from sprouting out; and, therefore, when the cartilages in the joints are eroded, an immobility is there formed, called *anchylosis*, or *stiff joint*, by the elongation and coalition of the fibres of the bones that are articulated together: sometimes they serve as ligaments to join the bones together, and sometimes they do the office of bones to greater advantage than these would do; as the cartilages of the ribs, which by their elasticity chiefly contribute towards respiration; and the cartilages that make out brims of cavities, &c.

Ligaments are white, tough, flexible bodies, thicker and firmer than membranes, and not so hard or solid as cartilages, without cavity; difficultly stretched, possessing little elasticity; they serve to connect parts together, and keep the part to which they are fixed in a proper situation, as appears remarkably in the joints or articulations; they are made up of fibrous layers or strata; the largest and strongest of which run lengthwise.

Muscle. This is the name of the immediate organical instrument of motion in the animal body, whether voluntary or involuntary. It is called organical, because mere elasticity is the immediate cause of some motions, as in respiration.

The general characteristic of a muscle is, that it consists of fleshy fibres, which, when acting, contract themselves, and become shorter; this contraction, according to different circumstances of the muscle, and the parts to which it is fastened, produces different effects, and different motions.

If one end of a muscle be united to a fixed part, and the other to a moveable one, when it acts, its fibres contracting will pull the moveable part to that which is fixed.

If both the parts, to which the extremities of a muscle are attached, be moveable, by its action they will be both drawn towards each other.

If the muscle be hollow, and contain a fluid, when it contracts it will press upon, and endeavour to expel, its contents; such a muscle is the heart, and in some measure the stomach, and bladder.

If the fibres of a muscle return upon themselves, in the form of a ring, when they contract they will diminish the area within that circumference, making the circle narrower. Such muscles are employed to shut cavities, and are called *sphincters*, because they have the power of closing cavities, and restraining the exit of any thing they contain.

Tendons. These are continuations of fleshy muscular fibres; each tendon being divisible into as many fibres, or rather bundles of fibres, as the muscle itself is to which it belongs; but the tendinous fibres are more compacted and smaller, drier and harder, than the fleshy fibres; they are not capable of contraction, but serve like ropes to pull when the fleshy fibres act, for the commodiousness and firmness of insertion, and for the direction of motion.

Nerves. These are soft white cords, proceeding either from the brain or spinal marrow, running to every minute part of the body, and are the immediate instruments of sensation, and indispensably necessary for the continuance of muscular motion. They are supposed by many to contain a very subtile fluid, but appear without any cavity, discernible even by the finest microscope.

Vessels in the animal machine mean the tubes or canals through which fluids or juices move; the least imaginable vessel is made of the least membrane, rolled up in the form of a hollow cylinder, or part of a cone. The vessels, as their coats must be thicker, are composed of thicker membranes, upon which smaller vessels run.

These are divided into *Arteries*, *Veins*, *Absorbents*, *Secretory Vessels*, and *Excretory Ducts*.

Artery. This is the name of that kind of vessel which, arising originally from the heart, contains a fluid whose motion is directed from thence towards the extremities and surface of the body. The larger

and easily visible arteries contain red blood, are of a conical figure, tapering from the heart forwards, and ramifying variously; in living animals they beat, or have what is called a pulse, answering to the motion of the heart; their coats look whitish, and are pretty thick and strong.

Veins. These contain a fluid whose motion is from the extremities or surface of the body towards the heart; their coats are thinner and more transparent than those of the arteries, and, therefore, they appear of a bluish, livid colour, the blood shining through them. In many places they have *valves* within them, small portions of membranous substances, fixed to the interior surfaces of the veins, so contrived that they open towards the heart, and shut the contrary way.

Absorbent Vessels. So called, *because they absorb or take up fluids,* and are divided into *Lymphatics* and *Lacteals,* from the particular liquids they convey to other parts; they are similar, only have different origins, and are calculated for different purposes, from whence they take their names. The former convey the lymph or aqueous fluids, the latter the milky juice, formed from the aliment in the intestines, called *chyle:* the lymphatics are the general absorbents, and carry the juices to what is called the receptaculum chyli, thoracic duct, and left subclavian vein; the lacteals only to the receptaculum chyli, or receptacle of the chyle.

The *lymphatics* and *lacteals* are very fine vessels; the former of which arise from the surface of the body, and all cavities or cells of the cellular membrane; the surface of the intestines, of the urine and gall-bladders, of the ventricles of the brain, and of all other parts, and carry a pellucid liquor towards the receptaculum chyli, and the thoracic duct, in which, like the lacteals, they all terminate.

Secretory Vessels. These include all those minute tubes, in the different organs, which are adapted for the purposes of secretion, designed to separate and strain off the different humours from the general mass of fluids.

Excretory Vessels, are those tubes, or ducts, which also belong to the different organs of sensation; whose office is to carry off the humours that are separated, and either convey them to their appropriated receptacles, where some of them are deposited, or discharge them out of the body.

Gland denotes in general, an organical texture of a circumscribed figure, framed so as to separate from the blood a liquid different from, and unlike the blood. Glands are by common people called kernels: they are divided into simple, and complex; the first is a little smooth body, wrapped up in a fine thin membrane, by which it is separated from other parts, only admitting an artery and vein to pass in, and giving way to a vein and excretory duct to pass out; these glands are called *conglobate*. The last, called *conglomerate*, consist of a number of the former wrapped up in one common membrane.

Membrane. This is a web, or rather a lamina, formed of a very thin substance, appearing like a bladder, whose thickness bears a very small proportion to its breadth and length. Most, if not all the membranes, we see in the animal body, are composed of, and resolvable into, thinner ones.

Fibre is a small thread or filament, without a cavity, at least without one visible; whose breadth and thickness bear a very small proportion to its length; the least fibre of all is too minute to be perceived by our senses, however assisted. The fibres we can perceive, are no other than so many bundles of smaller ones tied together.

These are the different solids of the human machine, simply considered, and, being differently disposed and united by means of the cellular membrane, of which we shall soon speak, form the human body. This is divided into the *living solids*, or solids which are endowed with motion, called *solida viva*, and into the *inert solids*, or solids which have not in themselves any motion, called *solida inertia*, which constitute the hard parts, and help to complete the cellular system.

Physiologists, or those who treat of the human body, and teach the uses of its various parts, form these into three systems; the *Vascular System*, the *Nervous System*, and the *Cellular System*.

The First of these has the heart for its centre: all the tubes or canals which are comprehended in this division, either carry fluids out from the heart, or return and convey them to it; and comprehends every species of *artery*, *vein*, *sinus*, *duct*, and *absorbent vessel;* and may be distinguished into *circulatory vessels*, *secretory* and *excretory vessels*, and *absorbents;* vessels through which the blood circulates; by which particular fluids are separated from it; by which these last are carried from the place where separated; and by which fluids are taken up, and carried into the machine.

The Circulatory Vessels include all the arteries, which, springing from the *aorta*, or large artery of the heart, and that called pulmonary, supply the lungs, carry out the general mass of blood, and all the veins, which being reflected back, and uniting at the two great sinuses of the heart, return it, and thus maintain perpetual circulation.

The *secretory*, *excretory vessels*, and *absorbents*, we have before explained.

The Second, or Nervous System, has the brain as its origin, from whence issue different portions called medulla oblongata, spinal marrow, and nerves. Some affirm that there are two sets of nerves, the one adapted principally to the purpose of perception and sensation, bestowed on the several organs of sense, internal and external; while the other is blended with the muscular fibres: because it is observable in certain diseases, that the muscular strength may be totally exhausted, and yet the powers of perception and sensation remain entire; and on the other hand, that the muscles may sometimes exert prodigious strength, while the senses are all locked up; hence the authority on which this distinction is founded.

But we must observe, that though all animal motion seems to be derived from the nervous system, and

although the heart, like every other muscle, can act no longer than the communication through the nerves which are bestowed on it remains free; yet there is a necessity for distinguishing between the vascular and nervous systems; because it will appear, when we come to inquire into the nature of diseases, that there may be evident disorder in the one, while little or none shall appear in the other; and this consideration will greatly influence us in the directions necessary to be given for procuring relief. These form the *living solids.*

The INERT SOLIDS constitute such parts of the body as have neither nerves nor vessels, viz. the cuticle or *scarf skin,* and its continuations; the nails; the hair; a great share of the substance of bones; cartilages; ligaments; tendons and their membranes: these inert solids form also the connecting medium every where between the living solids, binding together every minute vessel and nervous filament; and there are innumerable nerves and vessels in all parts of the body, which no eye can trace; yet, if we reason from analogy, and say, that the smallest branches and filaments are like the visible trunks and cords, then the transverse section of these must be circular; and consequently, when they come to be interwoven or laid together, they must universally leave intermediate pores, and minute cavities; hence we may understand, that though there may be some parts of the body which have neither nerves nor vessels, i. e. *no living solids,* yet there is no place in the whole fabric to which the cellular system does not extend, and where there is not some mixture of inert solids; besides uniting and binding together the different species of vessels, which either rise from or terminate at the heart; and all the nervous cords or filaments, which spring from the brain or spinal marrow, however variously they may be combined, disposed, or interwoven; and this fibrous and laminated connecting substance is not endowed, like the living solids, with either sense of feeling or power of motion.

That the CELLULAR SYSTEM extends itself univer-

sally throughout the whole frame, and has a general and free communication, seems fully proved by some particular diseases, such as universal dropsy, called *anasarca*, where water diffuses itself through the whole body; or *emphysema*, where air occupies the same space, passing from pore to pore, and cell to cell; for this membrane consists of a number of little cells, (hence its name,) which in many parts communicate with each other.

In the natural and healthy state, the cavities of the cellular system are either filled with a thin fine fluid, called lymph, or with oil; hence it is distinguished into two parts, the lymphatic and adipose, according to the substances it contains.

The pores, or minute cavities of the lymphatic part, are always to be understood as interposed between every nervous fibril; whereas the adipose cells are not so universally extended, the fat or animal oil being always lodged in distinct bags or vesicles; else, were it suffered to diffuse itself as freely through the cellular system at large, it would be equally distressing and fatal with the spreading of water in an universal dropsy, or of elastic air in an emphysema.

Of the Brain, and the other more complex Parts of the Machine.

HAVING now shewn the solid principles, and the systems of which the human body, aggregately considered, consists, we shall take a view of some parts which are formed out of these, with their fluids and uses, and give such accounts as may be requisite for the proper information of our readers, to enable them to discover what parts are affected in particular diseases, and to distinguish their nature. We therefore begin with the *Brain*, which is a soft pulpy substance surrounded by two membranes, one called *dura*, the other *pia mater*; and has also a third, called *arachnoid*, from its fineness, *similar to a spider's web*—the chief

peculiarities to be taken notice of for our purposes are the SINUSES, which are nothing more than large veins or receptacles for blood, and the VENTRICLES, which are cavities, four in number, moistened in an healthful state, with a fine vapour, which increasing creates disease. Like other parts of the body it has a variety of arterial branches coming from the heart, which are diffused through its substance, and on the membranes. From this are derived the whole nerves of the human machine, as the spinal marrow is no more than a continuation of the brain through the vertebræ of the back, and this is supposed to be the source of all perception, sensation and support of muscular motion. It is not considered in itself very sensible, but can transmit most acute sensations to every part of the body by means of the nerves, when in a state of health; and most violent ones when diseased; there is not the smallest portion of the living solids but is materially connected with it; so that it not only gives strong impressions to, but feels strong impressions from, the smallest portions when affected; and it may be considered the fountain of all nervous incitability, by which all the parts dependent upon the nerves are put into motion, or continued capable of persevering in their action.

And here, as we shall often have occasion to speak of NERVOUS INCITABILITY, and MUSCULAR IRRITABILITY, two powers to which, under God, we allow the existence of the machine, in a living state, and from whence the action of all its moving solids with respect to their continuance, are entirely owing, it will be proper to describe what we mean by these two terms; because they certainly do in some degree exist independent of each other, notwithstanding their intimate union, and in general conjunct action; and also, as by this knowledge, we shall in some cases be able to discover, how from particular defect in these two powers, separately attended to, diseases put on different appearances, and are to be prevented, alleviated, or cured by applications made to them distinctively as well as unitedly.

By INCITABILITY we mean that power in the brain and nervous system, which may be put into action by mental affection, as well as local irritation, and which produces those appearances we call sympathetic. That is, where parts distant from others show manifest signs of affection, though the cause producing them lies in some more distant part; as, *vomiting from a stone in the kidney, eruptions on the skin from affections of the stomach, &c.* or where affections are suddenly produced in the habit, from some external appearance out of the habit, no matter being at that time inherent, which occasions these affections from the locality of irritation, *as in some cases of hysterics and epilepsies*, assistants, or standers by, sometimes being seized with similar affections, during the hysteric or epileptic fit of patients thus affected, &c. &c.

By IRRITABILITY we mean that power which may be put into action by material stimulus locally exerted; yet is obedient to the influence of the nerves in general, and cannot in the living machine exist for any considerable time without this union.

To elucidate this, we shall observe that many will be thrown into convulsions by uneasiness of mind; we also know that the same complaint will be occasioned by severe irritation on some part or parts of the machine; or that parts themselves only will, from this source, experience such effects, as in cramps. Now as we are totally ignorant how the mind acts upon the brain and nervous system, and how these act upon the muscular fibres, so we cannot explain how immateriality acts upon materiality; therefore we can by no means make use of a term which points out specifically the action of these causes productive of morbid effects.

In order then either to prevent, alleviate, or cure the complaint from thence arising, such things are prescribed as may amuse the mind, and keep it free from those painful reflections, and put the body into such a state as to render it less susceptible of impressions from this source.

On the other hand, we advert to the part or parts

affected, and by our applications, locally directed, endeavour to remove the irritative cause in order to promote a cure; and to prevent a return, do such things as to render the part or parts incapable of being affected by the cause, or put under such circumstances as to render the accession of that case impracticable: hence we think the discrimination between the two terms quite necessary, as we shall in pointing out remedies always pay the strictest attention to constitutional peculiarities.

The LUNGS are situated in the chest, and there divided into two large portions called *lobes*, the one on the right, and the other on the left side, which are separated from one another by a transverse membrane called mediastinum, running from the breast-bone to the back, dividing the chest into two equal separate cavities, that have no communication with each other. The left lobe of the lungs is considerably less than the right, because the heart with its membrane, called pericardium, from its surrounding the heart, with the great vessels that open into it, are contained in the left division. The lungs, besides their external membrane, and cellular texture of which they are composed, are a congeries of air vessels from the *wind-pipe*, which is a firm tube, made up of cartilaginous or gristly rings, joined together by muscular fibres. These rings backwards are incomplete. This descends into the breast almost to the basis of the heart, and there divides into two great branches, the one right, and the other left; which again are divided and subdivided into lesser and lesser ramifications, and so distributed through all the substance of the lungs, terminating at length in small membranous, dilatable cells, or vesicles. Besides these, there are vessels which carry blood, and juices derived from the blood; and these two kinds of canals are so uniformly dispersed through the lungs, that in every physical point there are branches all over, which are supplied with nerves and absorbents. Various are the uses of this organ.

The most important is that of *respiration*, by which

a trajection of blood is effected through their substance, and circulation completed, in which life consists; by comminuting, condensing, and rounding its particles, and thereby adapting them to flow through the canals of different sizes in the body; creating redness in its globules: besides, it has several uses which are of the greatest consequence to the animal; the abdominal viscera are with a continuance alternately pressed upon, and freed from that compression; by which means concoction in the stomach and intestines is promoted; and the circulation through the system of the vena portæ, or large vein of the liver, which otherwise would be too sluggish, is urged on. The fæces and urine are expelled by its efforts; smelling is performed by inspiring, or snuffing up air; the fœtus is excluded by its assistance; and suction, so necessary for the preservation of the new-born animal, is performed; and without it there could be no such thing as voice or speech. Besides, the lungs are considered as the recipient of animal heat, that is, the quantity of atmospheric air which rushes into the lungs at every inspiration being loaded with those particles creating heat, they are separated from the air and pass into the blood, and by their evolution through the course of circulation form an universal stimulus to the vascular system, and at the same time they perform the office of excretion, throwing out such matters as have become useless, and would be hurtful if continued in the habit.

In the middle of the chest between the two lobes of the lungs, rather inclining in its position to the left side, lies the HEART. It is a strong hollow muscle, having two cavities, separated by a septum, or division, which are called ventricles, out of which issue the two large arteries of the human machine, one called the pulmonary artery, because it serves the lungs; the other aorta, or large artery of the body; near the mouths of these two ventricles are two other hollow muscular substances, from their similitude to dogs' ears, called auriculæ, into which the vessels

called vena cava descendens, (which carries the blood downward from the head and parts superior,) and ascendens (which carries the blood upwards from the parts inferior to the heart) and pulmonary veins (conveying the blood from the lungs) open; the two former into the right, the latter into the left. It is also enveloped with a membrane from its situation, surrounding the heart, called pericardium, by which, and the large vessels, it is kept in a fixed position—within this membrane there is a small portion of a serous fluid.

As we have considered the brain to be the source of all *incitability*, so do we the heart to be the principal source of *irritability*, whose chief office is to promote the circulation of the blood; an account of which may not in its proper place be unnecessary.

But before we enter on that subject, we must observe, that all the arteries of the machine ramify from the aorta, as branches of a tree from its trunk, dividing themselves into minute ramifications, in which there are no valves, except at the origin; whilst the veins must be looked upon as small branches forming a large trunk in which there are valves inserted, which open to the heart. Now in the former of these vessels there is required no such contrivance, because the blood, having a quick progressive motion, from the contractile power of the heart and arteries, has a sufficient force impelling it from behind, which prevents its retrocession; whilst, on the other hand, the slow motion of the blood in the veins and their weaker contractile power, unassisted with a force adequate to that of the heart, have great need of such an invention to prevent its *resorption*, and secure its return to the heart.

Now for a moment let us suppose the heart to be full of blood; that is, the ventricles have ceased to beat, and that it is put into motion by some cause, what will be the result with regard to the circulation? The lesser circulation through the lungs will be performed in the following manner: the blood will be propelled into the pulmonary artery from the right

ventricle, pass through the lungs, and return to the left auricle by the pulmonary vein; in the same manner in the greater circulation it will also be forced into the aorta, diffused through the rest of the machine, and return to the right auricle by the vena cava, passing through the different glands, in order for them to secrete such fluids for which they are destined; whilst, at the same time, the capillary or hair-like tubes, where there is no such glandular contrivance, will pass off the matter of perspiration, the auricles then being filled with blood will contract, eject their contents into each ventricle, and the same routine be performed again as above described.

The particular organs which we have now mentioned must be looked upon as the three most material ones for the support and preservation of life, and the sources and instruments of *incitability* and *irritability*, by which they perform their actions, and on which all the moving powers of the machine depend; but into the account we must also take the blood, which, with the lungs, we consider as the recipient and diffuser of those particles which animate nature, and supply an universal stimulus, which occasions the action of these sources and instruments of vital motions.

The Blood is a red, *homogeneous*, or apparently uniform fluid, as it circulates in the vessels, from whence all the other fluids of the human machine are secreted, or separated; but when out of the body, and left to itself, divisible into three distinct substances, called *serum*, *gluten*, and *red globules*, by a very simple process; though untouched, appearing only as two, called *serum* and *crassamentum*, the latter floating in the former; but the crassamentum is of different degrees of firmness in different subjects.

The Serum, or more fluid part, in an healthy state is almost colourless; at other times it is yellowish, or perhaps of a greenish hue, while the top of the crassamentum, or red part, has different degrees of firmness, and puts on different appearances

with respect to colour, according to the age, sex, and state of health of the subject from whence it is taken. The serum of the blood, like the white of an egg, coagulates with highly rectified spirit of wine, called alcohol, or any of the mineral acids, when they are mixed with it, or when heated to about the 160th degree of Farenheit's thermometer; but otherwise it continues in a liquid state.

The CRASSAMENTUM is composed of a peculiar substance, which gives redness to the blood, and of what physiologists term coagulable lymph, from its coagulating spontaneously. This coagulable lymph may be separated from the red part in two ways; either by stirring the blood which is fresh drawn with a whisk, when the lymph coagulating in a short time, will adhere to the twigs, and appear like a firm membrane, of a whitish colour, composed of fibres interwoven with each other; or by placing a piece of crassamentum on a strainer, and pouring on water repeatedly, until the red particles being washed away, shall leave only the whitish substance behind.

With regard to the red globules, it is not perfectly agreed of what nature they are; but it is asserted that the red colour is owing to a mixture of some portion of *ferruginous* or *irony* matter; in confirmation of which it may be observed, that the blood always becomes florid after a course of medicines of that nature; but whether it arises chiefly from the addition of irony matter, or owing to the increased motion which these medicines always produce, will admit of some dispute, for it is always found that the blood grows more red in proportion to the action and the strength of the vessels, and these medicines are allowed to produce such effects.

The proportion of the red part is small in respect to the other constituent parts, for one grain weight of this colouring matter will tinge, in a perceptible degree, a thousand of pure water.

Now as the blood in its healthful state is a tenacious fluid, capable of receiving a greater portion of heating particles in proportion to its tenacity, as it

passes through the lungs, so according to its stronger or weaker tenacity will it be capable of retaining more or less of these stimulating particles, hence from this cause will it be more or less stimulant, and assist in producing different deviations in the constitution; besides, it is from different causes liable to undergo many alterations, and other differences will be formed, of which we shall take notice in the succeeding pages.

As many peculiarities arise from the state of other organs in the machine that are worthy of observation, and necessarily combined with those already pointed out, we must now proceed to describe them also with their uses; but first we shall say something on

The THORAX, or CHEST. This is a large cavity, somewhat in the shape of a cone, reaching from the lower part of the neck to the abdomen, or *lower belly*, from which it is divided by a diaphragm, or *midriff*. The bones which form this cavity are twelve vertebræ of the back behind, twelve ribs on each side, and the sternum, or *breast bone*, before. This cavity is considerably shorter before than behind, from the diaphragm slanting downwards, and backwards. The ribs, which guard the greatest part of the cavity of the thorax, are all articulated with their respective vertebræ, in such a manner as to admit of a motion upwards and downwards; they are all, except the lowermost or twelfth rib, connected and articulated with the sternum, or *breast bone*, by the intervention of cartilages or gristles, so as to admit of the same motion upwards and downwards.

From the structure of the ribs, which are more or less arched, being convex outwardly, and concave inwardly towards the cavity of the thorax, it follows, that if the ribs are all moved upwards round their articulation with the vertebræ, their arched middle parts must be pushed outwards and laterally, and the sternum, to which they are joined, outwards and forwards; and consequently the cavity of the thorax will be widened and enlarged.

But there is a set of muscles which perform this

office, which are called intercostals, *from their being situated between the ribs*, and are both internal and external; they run obliquely from the edges of one rib to those of the ribs nearest each other, the whole length of the ribs, and from the highest rib to the lowest: the fibres of the external have a direction contrary to that of the internal, by which contrivance their joint action becomes the more steady, and the ribs being pulled in the *diagonal* of these two directions, endeavour to pull the ribs nearer to one another; drawing the inferior ribs nearer the superior; and thus the cavity of the thorax is widened, that the lungs may expand themselves in inspiration.

But there is another contrivance to promote this purpose; the DIAPHRAGM or MIDRIFF. This muscle, which divides the breast from the lower belly, arises from the breast-bone before, from all the ribs on each side, from the seventh to the twelfth; and behind from the last vertebre of the thorax, and the first one of the two loins. Its fibres run fleshy from the circumference to the centre some way, and then become tendinous; the whole diaphragm slants, its anterior organs being remarkably higher than its posterior ones; it is not plain, but remarkably convex towards the thorax, and concave towards the abdomen; insomuch that its middle or centre rises always higher in the thorax than its highest origin at the sternum; when it acts, the fleshy fibres shortening, pull the tendinous centre towards their origin, thereby rendering it plainer and less convex, and so lengthening the cavity of the thorax downwards; hence the enlargement of the breast is promoted two ways, by the intercostal muscles raising the ribs, and making it wider, and the action of the diaphragm rendering it longer or deeper; and by these means the several uses above specified, from the action of respiration, are promoted.

Immediately under the diaphragm lies the LIVER. It is of an irregular shape; its right part almost fills what is called the right *hypochondre*, or *side under the ribs below the diaphragm*, in an adult body, when

sound, reaching commonly no lower than the short ribs. In the fetus it is bigger, in proportion to the rest of the body, in all its dimensions. Its middle part lies in the region over the stomach, called *epigastrium;* and its left in the upper part of the left *hypochondre*, not reaching so far down as the right; some of its exterior parts are smooth and convex, humouring the concavity of the diaphragm; its under part is concave on the right side, answering to the gut called the *colon* before, and the right kidney behind; its middle part, in which the gall-bladder, called the *vesica fellis*, is placed, lies over the gut, called *duodenum*, which touches the gall-bladder; its left part covers the stomach; it is thick in the middle and upper substance, towards its sides it grows slenderer, at length terminating in a thin edge; by a furrow in the interior and concave part which receives the umbilical vein, or that of the navel in the fetus, on its anterior part: and by another answering to that backwards reaching to the posterior limits of the liver, which receives the venous duct, both which canals are pervious vessels in the fetus, but in the grown animal degenerate into ligaments: the liver is divided into two unequal parts called *lobes;* the right being much larger than the left; there is besides a small lobe in its posterior concave part, commonly called the *lobule of Spigelius:* there is likewise a transverse *fossa*, or furrow, running along the middle of its concave and under part, in some measure separating its anterior and larger from its posterior and smaller part: it is attached to the diaphragm, and its weight is in some measure supported by ligaments from that muscle, which are productions from the membrane which lines the inside of the lower belly called *peritoneum*, where it lines its concave surface, and is united by other such productions, with the neighbouring parts: it is furnished with arteries from ramifications of the aorta, called *cœliac*, *mammary*, *phrenic*, *renal*, and *capsular;* but it is furnished with veins of two kinds, totally differing from each other, which cannot truly be said of any other part of the

body; namely, the vena portæ, and its branches distributed through the substance of the liver, which perform the office of arteries, carrying blood into it; and the other veins, which carry blood out of it, emptying themselves into the vena cava, like the rest, all over the body.

As the rest of the arteries and veins may be compared to the trunk of a tree with its branches, so may the vena portæ, and its different ramifications, be compared to the root, trunk, and branches, for it is formed by a conflux of all the veins, which return the blood from the stomach, omentum, spleen, pancreas, intestines, and mesentery; and answer to the cœliac, and mesenteric, both superior and inferior arteries.—It is worthy to be observed, that all this venous system, which by its union constitutes the vena portæ, is unfurnished, unlike the other veins of the body, with valves; so that from its trunk it may be injected backwards to the minutest origins of small veins, in all the parts just now mentioned. The trunk of the vena portæ, thus formed, enters the liver between two eminences in the little lobe, called by the ancients πολαι, *portæ*, that is, ridges forming a little channel, or straight line, between them: as soon as it is formed into a trunk, it is found to have got stronger membranes or walls than other veins, and even tougher than the aorta or large artery of the body itself. This new and extraordinary strength of the coats of the branches of the vena portæ, they carry with them throughout all the substance of the liver; and they are distributed from trunks to branches, smaller and smaller, in the same manner as arteries are in the other viscera.

Thus is blood brought into the liver by arteries, called *hepatic*, of the common sort; and besides by the vena portæ, furnished with strong coats, and performing the office of an artery, the only instance of that kind in the whole body. The ultimate small capillary branches, both of the hepatic arteries and vena portæ, terminate in minute venous twigs, which arising all over the substance of the liver, and forming

larger and larger branches by uniting together, at length open by several large mouths into the vena cava about the posterior part of the liver.

The liver is supplied with nerves from the intercostal, and *par vagum*, so called; they are but small in proportion to its bulk, and therefore it is not liable to violent pains.

The great use of the liver is to separate bile, for many good purposes in the animal economy; and as it is now and then wanted more at some times than at others, there is in the liver a receptacle for part of this fluid, called the GALL-BLADDER, which is a pretty large hollow vessel, nearly the shape of an oblong pear, situated in a *fovea*, or furrow, in the anterior concave part of the right lobe of the liver, reaching transversely from before backwards; attached to the liver in different places by a cellular texture, covered over, in its under part, by a portion of the membrane of the liver, which, reaching beyond it, keeps it fast in its situation. Under this, all over its surface, is a cellular texture; next to that, a thin muscular coat, consisting of pretty conspicuous, longitudinal, oblique, and circular fibres; under that, a second cellular, then a nervous, and innermost of all a *villous* coat, similar to what is found in the stomach and intestines. There are likewise, especially in its smaller part, or neck, pores which yield a mucous juice, to defend it against the acrimony of the bile: from the same part is produced its duct, which stretching towards the left is inserted into one called the *hepatic duct*, which arises from the repeated union and conflux of the biliary ducts all over the liver; the union of these two ducts together forms the duct called the *ductus communis cholidochus*, which penetrates into the duodenum, or *first of the small guts*, just below the stomach. Thus we find the bile separated by the pori biliarii, more properly tubæ biliariæ, *biliary tubes*, of the liver, passes into the hepatic duct, part of which is constantly pouring into the duodenum, and part into the gall-bladder, whose use is to receive the bile, there to retain it,

until it be squeezed back again by pressure of the distended stomach, and action of the diaphragm, through the ductus communis into the duodenum: by staying there, the bile is rendered thicker, some of its aqueous parts being resorbed by the inhaling vessels of its villous coat, and therefore stronger, and of a more *saturated* yellow; it likewise becomes more sharp, bitter, and rancid, by the heat of the contiguous and circumjacent parts; while the stomach is empty the gall-bladder is at liberty to be distended and filled, and therefore becomes fuller after long fasting! and the fuller it is, the less compression of the stomach is required to squeeze the bile out of it, so that the more we are prompted to eat, and stuff the stomach by violent hunger, the greater quantity of bile will be poured into the duodenum, by the swelling of the stomach during digestion, to promote so much more effectually the coction of the aliments; and the cystic bile will be the sharper, and stronger, by having remained so much the longer in the gall-bladder.

The duodenum receives two sorts of bile flowing into it from the same canal, *viz.* the *hepatic*, fresh secreted from the liver, which never has been in the gall-bladder, but goes straight on into the intestines, and the *cystic*, or that of the gall-bladder also.

Both biles have the same properties, differing only in degree, insomuch that some species of animals have no gall-bladder, and therefore are only furnished with hepatic bile, as amongst quadrupeds, the *elephant*, *horse*, *ass*, and *deer*; amongst birds, the *ostrich*, whose digestion is so strong, the *stork*, and the *pigeon*; not to mention some fishes.

The Bile is somewhat viscid; coagulable by heat and alcohol; of a saturated yellow colour, inclining to green, extremely bitter, the sharpest, and most stimulating of all the circulating humours of the body, neither acid nor alkali, when fresh, but inclining to and susceptible of putrefaction; and promoting that disposition in any substances with which it is mixed, if they are capable of it; it mixes readily with wa-

ter, it flames not in the fire, unless it be dried, and then it burns almost all away; it is a powerful penetrating soap in every respect; it dissolves all gums and resins, being rubbed with them.

By these properties, when poured upon the alimentary mash in the duodenum, it must effect, *first*, a more intimate dissolution and mixture of the heterogeneous parts together, as it is readily miscible with water, and renders oil, and oily substances so: *secondly*, though it is not actually an alkali, yet it nearly approaches towards it; and must diminish the acescent disposition of the chyle, and render it more similar to animal nature, which is alcalescent: and *lastly*, by its stimulating power, as it is the most acrimonious of all the animal fluids, it helps to excite the *peristaltic* or vermicular motion of the intestines, and thereby promote concoction; and as it is a purgative, it assists in the expulsion of the feces.

The Pancreas, or Sweet-Bread, so called, is a long, whitish, tender, and *friable* glandular mass, situated behind the stomach and spleen, under the liver. Beginning at the spleen on the left side, it stretches transversely across the vertebræ, and with its other extremities is connected with the duodenum. In the human adult it is about seven or eight inches long, and one or more thick; its end at the spleen is smallest, and it grows gradually broader as it approaches to the duodenum, where it terminates: it has arteries from the cœliac; its veins run into the splenic vein, which opens into the vena portæ; its nerves come from the par vagum, and as they are but small, it has, like the liver, but little sensation: its structure consists of small round *acini* or glandular shoots, connected together with much cellular texture; from each of these there is a small duct sent out towards its middle; all these ducts open into the principal duct, which runs along its axis all its length, and penetrates the duodenum, five or six inches from the pylorus, or lower orifice of the stomach, at the same place with the biliary duct.

As the structure of the pancreas is the same with

the salivary glands, so its juice perfectly resembles the saliva in every property, and therefore may be presumed to have the same use, to dilute, open, and dissolve the alimentary mash, and render the chyle more similar to animal nature; as it is considerably larger than all the salivary glands put together, and situated in a warmer place, its juice must far exceed the saliva in quantity. It is propelled into the intestine by the common impetus and course of circulation, assisted by the pressure of the adjacent parts upon it in breathing: it is poured into the gut at the same place with the biliary duct, that it may be immediately mixed with the bile, in order to temper and dilute it, which is both thicker and sharper than itself.

The OMENTUM, or CAWL, is a broad membrane, thin and transparent, tender, and easily torn, arising from the anterior and inferior border of the stomach, and falling down commonly as low as the navel, sometimes much lower; then doubling backwards and upwards, is connected with the intestine called the colon, under the stomach, thus forming an empty bag. Besides its principal connection with the stomach and colon, it is likewise attached to the duodenum, to the spleen, pancreas, and mesentery: it lies immediately under the peritonæum forwards, being a production of its cellular part, and covers part of the stomach, and the greatest part of the anterior surface of the intestines.

It is every where a double membrane, but every portion of the thin membrane, by itself, may be divided into two thinner membranes, or sloughs, which are joined together by a thin cellular texture, in the cells of which fat is deposited: the secretion here is performed in the most simple manner, there being no other apparatus besides arteries, veins, and *pinguidinous* ducts, leading to the cells or vesicles. The fat is distributed in the omentum very unequally, being in some places thin and transparent, in others an inch thick in fat; in corpulent persons it contains a vast quantity of fat; it has its arteries from the

cœliac; its veins terminate chiefly in the splenic branch, and all of them ultimately in the vena portæ.

The uses of the omentum are, *first*, to interpose between the peritonæum and the intestines, and part of the stomach, that all the three parts may be preserved warm, moist, and slippery, and hindered from growing together: and, *secondly*, to furnish oily matter for the bile.

The SPLEEN is situated in the left hypochondre, that is, under the cartilages of the left short ribs; it is connected with the colon, stomach, left kidney, and by its upper part with the diaphragm; its situation is changed by the fulness or emptiness of the stomach; it follows the motion of the diaphragm, and is affected by the inflation or subsidence of the colon. In general it is placed upwards, and backwards from about the middle of the short ribs on the left side; in its natural and sound state, it is about six or seven inches long, about three in breadth, and one in thickness, of an irregular and somewhat oval figure, and of a dark livid colour; it receives arteries from the cœliac, these, entering its substance, are divided into innumerable branches, and by their evanescent extremities terminate in minute veins, forming by their union the splenic vein, whose fluid flows into the vena portæ. The vessels of the spleen are very large in proportion to its bulk, and yet it has no excretory canal but its vein; its nerves are small and few.

As the substance of the spleen is entirely vascular, with a tender cellular texture to support the vessels, and keep them together; its chief use *has been considered* to consist in dividing and attenuating the blood that runs into and flows through it; and from its situation, as it is much agitated, this also assists in the circulation and comminution of the blood flowing through it, and thereby rendering it fit to temper the sluggish mass sent from the omentum and mesentery into the vena portæ, and expedite the secretion of the bile in the liver.

As we consider the ŒSOPHAGUS and STOMACH continuations of the same tube, we shall proceed to describe them together, and afterwards make some observations on the intestines.

The ŒSOPHAGUS, or GULLET, begins at, or is continued with, the PHARYNX, or *Throat*, runs down along the posterior part of the thorax, or *chest*, behind the wind-pipe, and most commonly somewhat to its left, passes through the diaphragm, and a short way under it opens into the stomach, into which it conveys the aliments; it is made up of several membranes or coats: the external one is cellular; next to that is the muscular coat, consisting of two pretty strong plains of fibres, the exterior of which are nearly longitudinal, the anterior nearly circular. When the *former* act, they shorten and widen the tube, thus fitting it to receive aliment; when the *latter* exert themselves, they render it narrower and longer, and propel the aliment onwards: this alternate action, begun at the origin of the canal, and continued downwards successively through its different portions, one after another, determines the route of the aliment into the stomach.

Its innermost coat, called *nervous*, is tough and strong, fit to resist the hardness and roughness of what may be swallowed; it is lined with short *villi*, standing up like velvet, somewhat in the manner of those of the stomach and intestines, of which we shall presently speak. There are likewise numerous secretory ducts opening into it, which yield a mucus liquid, by which it is moistened and lubricated, in order to facilitate the passage of the aliment through its cavity.

The STOMACH, or VENTRICLE, is situated in the abdomen, or lower belly, immediately under the liver, which covers a great part of it above, and laterally; it is placed transversely, in the main, from right to left, but somewhat obliquely, so that its left or upper orifice, called *cardia*, which is continued to the œsophagus, lies more towards the vertebræ; and the right or lower, called *pylorus*, which opens into the

intestine duodenum, more anterior. In figure it resembles a bagpipe; its thickest part being its left extremity, at the implantation of the œsophagus, from which it tapers to the pylorus. The CARTILAGO ENSIFORMIS, or *lower part of the breast-bone*, answers nearly to its middle: the spleen lies contiguous to its lower part, on the left, and the pancreas behind its bottom.

The structure of the stomach is in general the same as the œsophagus, of which it may be considered a dilatation. Its most external membrane is a continuation of the peritonæum; its next is cellular, in which its great branches of blood-vessels and nerves run; in it there are likewise *conglobate* glands and lymphatic vessels. Under this lies the muscular coat; the exterior layer is a continuation of the longitudinal fibres of the œsophagus, which open and disperse themselves over the stomach; and as the stomach is by much the larger of the two, and of an irregular figure, they must of course be thinner, and less numerous in some places than others. They run mostly along the length of the stomach, and terminate at the pylorus; they seem to shorten the stomach, though but in a feeble manner, and widen its middle. The other stratum, or layer, answering to the circular fibres of the œsophagus, is by much the stronger of the two; its fibres run in a general way round the stomach, at right angles with its axis, though with considerable and intricate deviations; they seem, like the analogous stratum in the œsophagus, to lengthen the tube they encircle, and contract its cavity: a remarkable plain of this same stratum runs from the left orifice to the right by the shortest way, *viz.* along the upper and lesser curvature of the stomach; and appears to counteract its other fibres, by drawing the two orifices towards each other. And it is observable, that at the entry of the œsophagus into the stomach, the circular fibres are remarkably thick and strong, which therefore may serve, in some measure, as a *sphincter* to it, to shut its cavity there; but, upon the whole, the exact course

of the muscular fibres of the stomach are so extremely difficult to be traced and described, that hardly any two anatomists, unless they copy from one another, agree in their account of them. It is sufficient to conceive them to be so framed and distributed as to enable the stomach to press upon its contents every way, and gradually to expel them. Next to and immediately under the muscular coat, is another cellular texture, more conspicuous than the exterior one, in which pretty large trunks of blood-vessels and nerves run, after having penetrated through the muscular coat. Under it lies that called *nervous*, which is a firm, tough, white, and pretty thick membrane, constituting the principal and most peculiar coat of the stomach. The sixth in number is another cellular web, much thinner and more subtile than the two former, made up of shorter threads and laminæ. The innermost of all is the villous coat, so called, *because it hath villi*, or *pile like that of velvet, standing out from it;* these villi are small membranous productions, or sheaths, containing minute tubuli, both of the arterial and venous kind, opening into the cavity of the stomach. The arterial tubuli pour into the stomach a liquor much more subtile than blood, to be mixed with the aliments for the purpose of digestion; and when the stomach is empty, this liquor growing sharper, concurs with the saliva in exciting the sense of hunger, as has been said: the venous tubuli are absorbent, and resorb liquids from the stomach; the innermost or villous coat being larger than the rest, forms wrinkles here and there, more or less conspicuous: but at the pylorus there is a remarkable one; where a duplicature of the coat formed by this wrinkle all round the pylorus, and projecting into the entry of the duodenum, serves, together with the circular fibres of the muscular coat, to contract and almost shut that orifice, and let only the thinner parts of the alimentary mash be expelled out of the stomach into the intestine very gradually, and in small quantities at once: over all the inside of the villous coat, there open excretory

ducts of mucous glands, seated in the second cellular membrane, which furnish a lubricating liquor, as in the œsophagus, serving to defend the acutely sentient inside of the stomach from the acrimony, or otherwise hurtful qualities, of what we may eat or drink.

The stomach is plentifully furnished with blood-vessels; its arteries all come from the cœliac, and its veins all empty themselves into the vena portæ: it is no less largely supplied with nerves, every branch of which arises from the par vagum.

Now the use of this organ is for the *digestion of our food*, in order to promote the nourishment of the other parts of the body, as well as itself; and this it is supposed to promote by heat, moisture, agitation, and fermentation; all which, that it is capable of producing, it will be easy to conceive, when we consider its structure and situation: for we find it is almost covered with the liver, lies contiguous to the spleen and pancreas, is possessed of a muscular coat, has large trunks of blood-vessels running through its substances, lies close under the diaphragm, has fluids profusely excreted into its cavity, and is perpetually pressing down the œsophagus, besides its lying over the aorta or great artery of the machine; and thus the texture of the aliment is broken, the juices they afford set at liberty, mixed with the gastric juices, or those of the stomach thrown into a state of fermentation, and changed into materials proper for forming nutritious fluids, as far as the first process extends, which are farther perfected when they pass into the intestines, whose structure is similar to that of the stomach, by being mixed with bile, pancreatic and intestinal fluids; converting them into a white liquor, called *chyle*, which is absorbed by the lacteal vessels, and, in their passage through the lymphatic glands to the receptacle of the chyle, further mixed and diluted with lymph: from this receptacle the chyle is carried into the vena cava, thrown with the blood into the right auricle of the heart, thence into the right ventricle, which ejects it into the lungs by the

pulmonary artery, in which organ it is further elaborated, thrown from thence into the left auricle and ventricle, and then into the round of the greater circulation, where it meets with fresh attrition; and thus, in a little time, is converted into a perfectly nutritive fluid, which is applied to particular parts for their support as wanted. But the stomach, besides being the instrument for performing the first process of digestion, is possessed of another material power, that of promoting sympathetic affections in the constitution.

The INTESTINES are six in number; three small and three large, *viz.* DUODENUM, so called *from being twelve finger-breadths long;* JEJUNUM, *from being commonly found empty;* ILEUM, *from being supported in part by the bones called Ilia:* these form the three first, or small guts.

The DUODENUM is wider than the others, as it receives all the mash expelled out of the stomach, which cannot be said of the other bowels, some part thereof being resorbed by the way, but chiefly on account of its having for a great part of its length, from its origin progressively, no external tough covering from the mesentery to limit its size; it is likewise redder and more fleshy than the jejunum and ileum, its muscular fibres being thicker and stronger.—About its middle it receives a duct from the pancreas and liver, called *pancreatic* and *biliary*, which passing through its coat obliquely, opens into it through one orifice; it makes several curvatures; the most considerable is that by which it ascends almost perpendicularly some way, soon after the two ducts open into its cavity, whereby the alimentary mash must needs be somewhat retarded in its passage through it; and the bile and pancreatic juice the more thoroughly mixed therewith, and with one another; in its beginning, its innermost coat is even, without wrinkles or furrows, such as are called *valvule conniventes;* but in its progress, and towards its termination, it gets many such; which must farther retard the progress of its contents; it is supplied with arteries chiefly

from the same trunk that supplies the stomach, *viz.* the cœliac; some lacteals, though but few, arise from it.

The JEJUNUM.—It is not easy to fix exactly the limits between the duodenum, ileum, and this bowel: one way of distinguishing the jejunum from the ileum, and perhaps the best, is to call all that jejunum, whose circumvolutions are above the umbilicus, or *navel;* and whose cavities are remarkably furnished with rugæ or valvulæ conniventes: this will make it about a third shorter than the ileum; it is narrower than the duodenum; its muscular fibres are thinner and weaker; it has some clusters of glands, called *Peyer's,* from their discoverer, and sends forth numerous lacteals.

The ILEUM makes its windings chiefly below the umbilicus; the lateral foldings are supported by the *ossa ilia,* above the thigh bones; its structure is much the same with that of the jejunum, except that in it the valvulæ conniventes decrease gradually, both in number and size, till at length they disappear. It hath more of Peyer's glands than the two former, especially about its termination, and sends forth extremely numerous lacteal vessels; the jejunum and it furnishing almost the whole of these canals: it is considerably longer than the jejunum, and is continued to the first of the thick bowels, called *colon.* Both the jejunum and ileum are furnished with blood-vessels from the mesenterica superior. These small bowels, whose coats are pretty much the same with those of the stomach, are the instruments immediately employed in making the chyle.

The thick or large bowels are also three in number: the CÆCUM, COLON, and RECTUM.

The ileum, the last of the small bowels, terminating near the right kidney, opens into the colon, at its junction with the CÆCUM, or blind gut: this is a short wide sack, about three inches long; its diameter about thrice as large as that of the small intestines; it is situated under the right kidney, and hid by the last convolution of the ileum, and has an appendix aris-

ing laterally from its bottom, called *appendicula vermiformis*, and is about the same length but very slender, its diameter commonly not exceeding a quarter of an inch; its termination is shut, and it fluctuates loose.

The Colon from its origin makes a large turn upwards as far as the liver; then proceeds transversely to the left, under the gall-bladder, which it touches, under the bottom of the stomach, towards the spleen and left kidney, to which it is fastened; from thence passing, it makes several turns, the whole of them pretty much in the figure of a capital S inverted, then terminates in the rectum; so that it surrounds, in a manner, the whole abdomen, sometimes ascending, sometimes descending; hence it happens that one stool is often succeeded immediately by a second: by this contrivance likewise the feces are longer kept, and hindered from being every now and then indecently voided.

The Rectum, or Straight Gut, so called, *because its course, if the length of the body be regarded, is straight*, though it is bent backwards and forwards, humouring the direction of the os sacrum and os coccygis, bones situated at the lower part of the back, begins where the last curvatures of the colon end, and is terminated at the anus.

It is worthy to be observed, that there is a remarkable contrivance at the junction of the ileum with the colon and cæcum, by which the contents of the small intestines are allowed a free passage into the thick ones, but small regress or retropulsion from the latter into the former is effectually hindered; this is called *Valvula Bauhini, Tulpii*, or *Coli*. Its effect in the animal economy is very salutary; for as the contents of the intestines become fetid in the cæcum, by their being retarded there, both upon account of its capaciousness, and the almost perpendicular ascent of the colon, which is continued from it, if their repulsion into the ileum was not effectually hindered, the chyle in the small bowels would be tainted with putridity, and even excrementitious matter thrown up at the

mouth in obstinate costiveness; whereas, not so much as a *fæcal halitus*, or the most subtle effluvia, can get that way in a state of health, though stools should be wanting ten or twelve days together, as happens to some persons.

The cæcum being much wider than the small intestines, and at the same time lower than the implantation of the ileum, the contents must in some measure stagnate there; especially as the colon, from its origin, mounts in a manner perpendicularly as far as the liver in the right hypochondre. By stagnating in so warm a place their putridity increases, and they acquire their fecal odour, which is not observed in the contents of the small bowels: they likewise become less fluid and more consistent, by the resorption of the more liquid parts through the lacteals and other bibulous veins still continuing.

The Vermicular Appendix of the Cæcum, by the numerous glandular outlets in its cavity, serves, as well as a receptacle for the meconium in the fetus, to lubricate the contents and membranes of the cæcum, into which it opens, as well as its own, in order to facilitate the propulsion of the fecal matter, and prevent its adhesion to the coats of the cæcum and its own, and where it must stagnate longer than it had stagnated hitherto any where in the intestinal tract. This use likewise takes place in the born animal; and besides, in obstinate costiveness, by affording more room or stowage for the congested feces, it renders that complaint more easy to be borne, and less detrimental than it otherwise might be.

The cæcum and colon, besides having a stronger muscular coat than the small intestines, are furnished with three ligament-like bands, running lengthways on their outside, dividing their surface into three portions nearly equal. Though they appear like ligaments externally, they are made up in their inner structure of true muscular fibres, and strengthen the longitudinal fibres of the muscular coat; as they are longer than the proper coats, they keep them drawn up into folds or wrinkles.

Through these intestines is propelled and urged on, the remainder of the alimentary mash, after having undergone the action of the small bowels: it consists of the earthy part of the materials taken in for food; of the membranous, fibrous, cartilaginous, and bony parts, that could not be sufficiently broken, and comminuted by the stomach or intestines, so as to be taken up by the lacteal and other absorbing vessels; the recrements of the bile, and mucus furnished by Peyer's glands, all mixed together.

The causes of its propulsion are the same as in the small bowels, *viz.* the action of respiration, and the peristaltic motion of the intestines themselves; but its course is slower than in the small guts, upon the account of its thicker consistence, the ascent and windings of the colon, the delay it meets with from furrows within the tube, and the great impediment from hard feces, pent up in the rectum by the sphincter ani. The putridity is increased as it goes on; and as putrefaction generates air, the colon is commonly found distended with flatulency. The whole is more and more gradually exhausted and robbed of its most fluid parts: and as what putrid miasmata are absorbed by the mesocolic veins, are determined finally into the vena portæ, to contribute towards the rancidity and putrescent disposition of the bile; so that even here the feces, which are upon the point of being expelled out of the body altogether, are rendered useful, and made subservient to the perfection of what is left behind.

The Rectum begins in the pelvis, where the last curvatures of the colon end; its muscular coat is much stronger than in the other intestines; the ligament-like band, which in the cæcum and colon are collected into three portions, are spread equally over its surface, that no part of it may be weaker than another, lest it should give way in the effort of throwing out its contents. Into this intestine the fecal matter, now consistent and shaped by the cylindrical cavity of the colon, especially in its last curvatures, where it is more uniform, and not so much distended

by flatulency, is received and accumulated therein, until, by its increased bulk, weight, and acrimony, it becomes troublesome, and would prove hurtful if long retained. Then it is expelled by the muscular powers furnished for that purpose; and strong powers they are, admirably fitted to answer their end.

The INTESTINES are not left to move at random in the cavity of the abdomen, but artfully tied down by a membranous web, which prevents their circumvolutions from being entangled in each other; at the same time allowing them a gentle but limited motion. That part of it which is connected with the small intestines is called MESENTERY; the other part, fastened to the colon, MESO-COLON. The rectum has a particular membrane allotted to itself, for fixing it.

This membranous web, (for the mesentery and meso-colon are one continued membrane,) is a double production of the peritonæum, arising from the vertebræ of the loins; its two laminæ are joined together by a cellular texture, in which the lacteals, blood-vessels, &c. run, and the mesenteric glands are placed. When this double membrane has arrived at the intestines, its laminæ separate, and quite surround them, thus furnishing their external covering.

Upon a slight survey of the uses produced by the mechanism of this part of the human machine, we cannot avoid being struck with wonder at its apparent simplicity, answering so many salutary purposes. If we trace the materials, thrown into the stomach for our support through the intestinal tube, we must more and more admire the excellence of the Divine workmanship. For as soon as we take our food it is received into a place, in all points calculated to render it fit for yielding its nutritious contents, by mixing with the salivary and gastric juices, having its texture broken by muscular action, not only of its own coats, but the organs of respiration, and the quickly repeated shocks of the largest artery in the human machine, and from heat, increased from its

situation, soon thrown into the process of fermentation; by all which it is rendered fluxile, and passes, from the contrivance at the lower orifice of the stomach, slowly into the head of the first of the intestines, which is more capacious than its inferior part. It is there mixed with the bile, increased in its quantity in proportion only as it is wanted, by the very means of those things which require it; and pancreatic juice, calculated to convert the various portions into a nutritious fluid, by mixing the parts uniformly together, at the same time affording a stimulus to promote the propulsive force of the intestines, and consequently increase the action of those vessels implanted in the sides of them, to convey it through the mesenteric glands, where it receives more liquid, thinner than itself, to increase its fluxility into the receptacle appropriated for this purpose, and from thence into the blood: the feculent or thicker part being at the same time pushed forwards into the larger bowels, from whence there can happen no regurgitation of any, even of its finer parts, though delayed for some time, in order that a portion of its alkalescent or stimulating materials may be carried through the vena portarum into the liver, to increase the acrimony of the bile. And as here the feces acquire a greater hardness, consequently stand in need of a greater force to propel them forwards for their exit, the bowels in this place are possessed of greater strength, and require a stronger stimulus to excite them to more powerful action, which the putrescent state of the feces, acquired by delay, affords.

But besides the uses, herein specified, appropriated to the stomach and intestines, there is another very considerable one bestowed on them, particularly the former, by which very material affections are diffused to almost every part of the machine, and from which all the sensible parts of the body receive very peculiar and extraordinary advantages; I mean, that of conveying action to different parts, and feeling the effects from these sympathetically and instantane-

ously; for in many cases the stomach not only will experience perceptible effects locally of things received into its cavity, but communicate effects to different parts from that local action; nay, will produce them sometimes without the animal being sensible of any action going forwards in that organ; and will itself be affected by some causes acting on other different parts, with the same unconsciousness of the locality of action, as well as sensible perception of such action; so close an union is there between this organ and the intestines, with various parts, the most distant as well as the more contiguous.

The KIDNEYS are two glandular bodies, situated in the posterior part of the cavity of the abdomen, on each side of the vertebræ of the loins, between the last false rib and the ossa iliaca, or hip bones. The right kidney lies under the great lobe of the liver; the left under the spleen, and therefore is higher: they are commonly about five inches long, about three broad, and one and a half thick; they are connected with the colon, duodenum, liver, and spleen, by the productions of the peritonæum. They are in shape not unlike a large bean, their circumference being convex on one side, and concave on the other; the concave side is turned towards the vertebræ, or back-bone.

The kidneys are surrounded with a loose cellular texture, in which there is much fat; this likewise invests the veins and arteries of the kidneys. The proper coat or membrane of the kidneys is double, being composed of two laminæ, or layers; betwixt which there is a very fine cellular texture; the external laminæ is very thin, and only surrounds the body of the kidney; the internal one penetrates every where by numerous elongations into the substance of the kidneys, from which it cannot be separated without tearing. The substance of the kidneys is smooth, even, and uniform in adults; in young children, divided in a manner into several lobes and tubercles, or portions.

They are supplied with very large blood-vessels, commonly called emulgents. The arteries arise from the great descending artery of the heart, nearly at right angles, one large trunk for each kidney; they run horizontally to the kidneys, and commonly without division; and having sent off branches to the external surface of the kidney, the chief trunk enters into its body at its concave part, and is distributed by a very large number of small branches over all its substance. The veins running along with the arteries, open in a large trunk from each kidney into the cava descendens, or large descending vein, near that part of the aorta where the arteries arise.

If the kidney is cut through its convex, towards its concave part, into two equal portions, there appears a three-fold substance composing its body; the exterior part, called *cortical*, round the whole circumference of the kidney, of a bright whitish gray colour; a middle substance, called *medullary*, striated or streaked, which terminates in the third, called *papillary*, as it ends in eleven or twelve papillæ, or nipples; from the ends of which the urine drops through several small holes in the cavity of the kidney.

The intimate structure of the kidney is entirely vascular; the small anterior branches proceeding towards the papillæ are reflected back with serpentine circumvolutions towards the surface of the kidney, then are bent again towards the papillæ, and at length send off straight urinary ducts, perforating the papillæ, and tending to the cavity of the kidney called *pelvis*, which is continued to the ureter, a vessel which runs into the bladder.

The pelvis, which is truly the head of the ureter, is the reservoir into which the urine drops, from all the urinary ducts, or tubuli. It is formed by the confluence of three large urinary canals, into which the small urinary ducts open by holes, laterally.—This cavity, or pelvis, is straitened at length into the ureter, one to each kidney; so that the kidney may be imagined to be a vascular congeries, consisting

of arteries, uriniferous ducts, or those which convey urine, and veins, all running together over the substance of the kidney; the urinary ducts opening at length into the great urinary reservoir or pelvis, which terminates in the ureter. In the kidney there are no follicles between the last arterial branches and the first urinary ducts.

By this apparatus is the urine separated in the substance of the kidney, and sent into the ureter: the vast largeness of the emulgent arteries, and their proximity or nearness to the heart, shew that a great quantity of blood comes in a small space of time to the kidneys. Now the blood which is newly come from the heart must contain a great quantity of water; as, besides our drink, and the stomachic and intestinal juices, almost all the lymph of the body is poured upon the chyle, in its receptacle in the lower belly, and the duct in the thorax, immediately before it is mixed with the blood.

This water, impregnated with the salts of the blood, and some animal oil, attenuated by the process of concoction or digestion, and circulation, and rendered miscible with water, and united with these salts, together with subtle earthy parts abraded from the inside of the animal tubes, constitute the matter of urine. The diameters of the urinary ducts are adapted to admit these, and exclude, in a sound state, every thing grosser, as globules of blood, mere oil unattenuated, milk or chyle, and serum or lymph, that is concrescible by fire, urine being not so; at the same time they transmit every thing that is thinner, if it arrives at the kidneys; so that urine is the lixivium or ley, as it were, of the blood; by the separation of which it is edulcorated. Its salts and oils, which begin by repeated circulations to be more acrid than the tender vessels of the nerves and brain could bear, being washed off, and thrown out by the urinary passages.

The URETERS, arising from the pelvis of the kidneys, run down obliquely, and with a very small inflexion, from the kidneys to the lateral parts of the

inner and anterior side of the os sacrum, or lower part of the back, and passing between the rectum and bladder, are inverted in the latter. Their structure is much akin to that of the intestines, though the innermost coat is smooth and membranous, furnished with glands separating a mucilaginous liquor, to defend it against the sharpness of the urine; they open into the neck of the bladder on each side, penetrating obliquely through its coats.

The BLADDER is a membranous and fleshy sack or bag, capable of contraction and dilatation, situated in the lower part of the abdomen or belly, immediately behind the joining of those bones called ossa pubis, and opposite to the beginning of the rectum. The figure of it is nearly a short oval; it is broader on the fore and back than on the lateral parts; rounder above than below when contracted, and broader above than below when distended. It is conceived as divided into the *body*, *neck*, and *bottom*, into *anterior* and *posterior*, and *two lateral parts*, right and left.

The upper part is termed its *bottom;* its neck is part of its lower portion, with respect to its situation in the body. The bladder is not within the cavity of the peritonæum, that membrane only covering a part of its bottom or upper part, and coming down no farther anteriorly, but being reflected over the bladder, descends, covering it as far down as the insertion of the ureters.

The structure of this organ is nearly the same with that of the ureters, *viz.* besides the peritonæum, which covers but part of it, there is first an external cellular, under that a muscular coat; then a second cellular, then a nervous coat, and the innermost of all a coat in some measure villous, furnished with glands which separate a mucilaginous liquor, necessary to defend it against the sharpness of the urine, which stagnates within it often, for a very considerable time together.

The fibres in the muscular coat run in all manner of directions; the outermost and most remarkable series is longitudinal, running from the neck upwards,

and has been thought to deserve a particular name, *detrusor urinæ*, expeller of the urine; the others run obliquely, by different degrees of obliquity, and some altogether transverse: the neck, or under part of the bladder, is shut by a muscular sphincter, like that of the anus.

The use of the bladder is to receive the urine, which keeps constantly flowing from the urinary ducts and kidneys into the pelvis and ureter, and to retain it, that it may not indecently dribble, and disturb the functions of life. It seems to change its nature no otherwise than by its being kept at rest in a warm place, thereby becoming more acrid and stimulating. The urine is detained in the bladder by its sphincter, till by its distension, and the acrimony of the urine, we are made uneasy, and endeavour to expel it, through the urethra, out of the body; which is done in the same manner as the feces are thrust out, by the joint action of the diaphragm and the muscles of the abdomen, assisted by the proper muscular coat of the bladder; and the pyramidal muscles in a particular manner favour the evacuation of the bladder, as they lie nearly over it.

The Uterus, or Womb, the habitation of the fetus, is situated between the urinary bladder, which is placed before it, and the intestinum rectum, placed behind it. In a grown woman, not with child, it is of about three fingers'-breadth long, two in breadth, where it is broadest, and one in thickness; it is of the figure of a flat flask, convex before and behind, with edges inclining to sharp; its broadest extremity, which is called its bottom, is uppermost; and its small part, called its *cervix*, or neck, downwards; it is covered over with a production of the peritonæum, two portions of which, one on each side, fasten it to the sides of the pelvis, and are called the *ligamenta lata*, or broad ligaments.

The womb, when impregnated, has but a very small cavity, its walls being very thick; the cavity is in some measure of a triangular shape, and it is lined with a very thin small membrane.

The womb is made up of a compacted cellular substance, with a copious intermixture of blood-vessels; there appears something like muscular fibres amidst the cellular substance, especially in women newly delivered, variously distributed in little circles.

The smaller and lower part of the womb, called its neck or cervix, abounds with callous *rugæ*, or folds; in the interstices or spaces of which there are mucous sinuses, and here and there round vesicles full of a pellucid lymph, where it opens into the vagina, described below: it forms a round protuberance, not unlike the glans penis, called the *os uteri*, mouth of the womb, or *os tincæ*, because supposed to be like a tench's mouth, divided by a *rima* or *chink;* on which protuberance there is plenty of a mucous glutinous liquor, furnished by numerous sinuses there: this glutinous liquor serves to shut the os uteri in pregnancy.

The VAGINA, or canal of the uterus, is about six or seven inches long; it is stretched from the mouth of the uterus to the *pudendum*, or external parts; it is of the same texture with the uterus, *i. e.* cellular, with numerous blood-vessels interwoven; its inner surface has several rugæ or wrinkles; there are likewise nervous *papillæ* spread over it, which render it more sensible: its external orifice is surrounded with muscular fibres, which constrict it.

The uterus, as hath been said, is plentifully stored with blood-vessels; they are furnished from the *hypogastrics*, by which likewise the inner and greater part of the vagina is supplied; its outer extremity is furnished from the external *hæmorrhoidal.*

The womb is adapted for the retention of the embryo, and its nourishment, till the time of birth; and, with the vessels of the vagina, for affording the monthly evacuation called *menses.*

But to the womb, for the purpose of promoting the generation of the human species, there are united two other contrivances on each side, the one called *tubæ Fallopianæ*, Fallopian tubes, from the discoverer Fal-

lopius; the other *ovaria*, from their retaining small round substances of the nature of eggs.

On each side of the *fundus uteri* the former open by two small orifices, which, in a dead subject, with difficulty admit a hog's bristle; from this small opening each tube proceeds somewhat transversely from the fundus, towards the lateral parts of the pelvis, running between the duplicatures of the broad ligaments, their diameters gradually augmenting to their extremities, where they are about a quarter of an inch wide; they run not straight from the womb, but wind in such a manner as to turn their wide open extremities towards the ovaria; these extremities are jagged or scolloped; their external membrane, or covering, is from the peritonæum; their proper coat is plentifully furnished with vessels; there are some obscure, seemingly muscular fibres interspersed, supported by a spongy cellular texture.

The OVARIA are two whitish oval flat bodies, situated on the sides of the fundus uteri, to which they are joined by a kind of short ligament, and inclosed, together with the tubæ Fallopianæ, in the duplicature of the broad ligament; their substance is cellular and close, without fat; in them there are found, even in the ovaria of virgins, little round vesicles, called *ova*, or eggs, of an uncertain number, commonly ten or twelve, full of a transparent coagulable fluid. These ova adhere closely to the texture of the ovaria.

The OVARIA, and TUBÆ FALLOPIANÆ, are supplied with blood-vessels from the *spermatics*, which have nearly the same origin in females as in males, *viz.* the arteries from the aorta, near the rise of the emulgents, and the veins from the vena cava, and emulgent vein; these inosculate or join with the vessels that go to the uterus.

These also are supposed to perform particular functions in the propagation and formation of our species; for the ovaria are squeezed by the edges of the tubes, which disengage some of the ova, or eggs, that are impregnated, generally one, now and then two, three, or four; these are forced into the tubes,

and carried into the cavity of the uterus, where they fix themselves and are retained; and here the fetus is nourished till the proper time for its birth; which happens almost always in the space of nine months.

We might now, according to what we first proposed respecting the nature of our subject, finish our anatomical account, as sufficient has been described to lay the foundation for giving a tolerable idea of constitutions in general; but as we also intend to shew the methods of preventing, or stopping the progress of particular complaints, local as well as general, we must, before we conclude, speak of the *testes*, *urethra*, and *penis*, the male parts of generation; as they are subject to some complaints which require early attention, by which several disagreeable consequences may be prevented.

The TESTES, or TESTICLES, with regard to their situation, are sufficiently known: they are defended from cold, and other injuries, by several membranes or coats.

The outer one is called the *scrotum;* which is made up of the *epidermis* or scarf-skin, the skin, and immediately under the latter a thick cellular texture, closely adhering to it, but without muscular fibres; next under this is what they call *dartos*, from its drawing up the skin. This coat envelops each testis singly; and by the junction of both together, where their sides are contiguous, make a partition between the two testes: it is likewise wholly cellular, without muscular fibres, and without fat. Under the dartos is the *cremaster muscle*, so called from its suspending the testicles; there is one to each, and arise from the tendon of the *obliquus descendens*, oblique descending muscle of the lower belly; yet some fibres from the *obliquus ascendens*, oblique ascending muscle, thus embracing the body of the testes all round, serve to raise it, and squeeze it in the act of generation. It is probable, that, by the action of this muscle, the scrotum is gathered up into rugæ by cold, as neither it nor the dartos are furnished with muscular fibres. Under this muscle is another coat, of a looser cellular texture,

called *vaginalis*, from forming, as it were, a kind of sheath to the testes; between which and the innermost coat of all is a loose space, in some measure like that between the heart and pericardium, where a watery humour is contained: the last and innermost coat is called, from its whiteness, the *albuginea;* it is a thick, close, strong membrane, immediately contiguous to the kernel of the testes; the substance of which kernelly part is of a white colour, and, from reason and analogy, it is concluded to be a continuation of the evanescent branches of the artery, called *spermatic*, (from its supplying blood to the testes, from whence the semen is secreted,) rolled up together. It is divided into more than twenty portions or clusters, separated from one another by as many partitions, which are productions of the albuginea. Each cluster, contained between two partitions, terminates in one duct; which ducts, above twenty in number, meeting together, form a kind of net-work, adhering to the albuginea; every duct *anastomising* with those contiguous with it: from this duct arise ten or twelve other distinct ducts, which being separated, bent, or folded in a wonderful manner, make as many vascular cones, and by their uniting, constitute the head or beginning of the *epididymis*, or small testicle. This single duct, variously bent, and folded into serpentine windings, such as there is no instance of in any other part of the body, its windings being fastened together by a cellular texture, makes a roundish body on the upper and posterior part of the testicle, called epididymis, which at length terminates in a firm and tough cylindrical tube, called *vas deferens*.

The Penis consists of two bodies, called *corpora spongiosa* or *cavernosa*, spongy or cavernous bodies; part of the *urethra*; the *glans* or nut of the extremity, and its integuments. The integuments are, first, the scarf-skin, and true skin, which being folded back, and adhering round the root of the glans, forms what is called the *præpuce;* in the inside of which there are small glandular *folliculi*, which separate an oily substance, serving to make the præpuce slip over the

glans, and hinder them from growing together: this substance forms white flakes, and grows rancid and fetid by long stagnation. In hot countries, it is more apt to corrupt and create inconveniences than in temperate climates. This seems to have introduced circumcision, which was early practised all over the East, and made a part of the Jewish religion. It is performed by cutting off the præpuce quite round, close by the root of the glans.

Under this common integument, the penis has a proper coat, covering all its body, from the glans exclusive backwards, and is of a tough tendinous texture.

The TWO CORPORA SPONGIOSA, or SPONGY BODIES, arise from the os pubis on each side, and are continued to the root of the glans: they are so called because they are porous, like sponge, and capable of being enlarged by a fluid penetrating their substance, chiefly in the living by blood, or in the dead subject by mercury or inflation of air.

The URETHRA is a continuation of the neck of the bladder, and runs in a furrow between the two corpora spongiosa, to the extremity of the glans; it consists of two thick spongy membranes, with a spongy texture between them; its beginning is covered by glands called PROSTATÆ; at its emersion from which, it becomes thicker and wider for the length of an inch, which thick part is called its *bulb*, from the resemblance it bears to a bulbous root: its inner membranes are pierced with many holes, here and there, through which, from a glandular apparatus in the spongy substance of the urethra, a mucilaginous liquor is furnished, serving to defend it against the acrimony of the urine. Besides these orifices there are three other glands, two near the bulb of the urethra, one on each side, about the size of a pea; each of which sends off a long duct which opens into the urethra, and a single one, less than the other two, at its bend under the os pubis, which sends off the ducts opening into that canal. The first two are often found, but sometimes wanting or very small; the third is but seldom met with: the orifices are called by some

lacunæ; these glands, *Cowper's glands*; they both probably serve for the same purpose.

The GLANS is a continuation of the spongy substance of the urethra, reflected over its extremity, and expanded in the form we see: it is covered over with a thin *epidermis*, or scarf-skin; under which there are numerous nervous papillæ, rendering it extremely sensible.

The penis is plentifully supplied with blood-vessels from the iliacs, both external and internal; its nerves come from those of the loins and sacrum.

The use of the parts we have now described are for the propagation of our species, and for the evacuation of urine.

The EYE.—The external surface of the eye-lids consists of common integuments, which in this place are thin, weak, and exquisitely sensible. The internal membrane of the eyelids is thin, red, and very sensible; and extended over the anterior part of the bulb of the eye, hence called *tunica adnata*, or *conjunctiva*. Between the external and internal membrane, at the margin of the superior and inferior eye-lid, is interposed an arched cartilaginous lamella called *tarsus*. The tarsus of the superior eye-lid is larger and more like an arch. The external margin of the tarsus is covered by the skin of the eye-lid, which is firm and thick at this place; and there are short hairs, turned outwards, that arise from it, and, intersecting one another when the eye-lids are drawn together, are called *cilia*.

Eye-lashes.—On the internal margin of each eye-lid lie lengthways small simple glands, separating a soft unctuous matter; these are called *glandulæ sebaceæ Meibomianæ*. At the extremity of the tarsus, near the internal angle, are two small orifices, one of which is conspicuous in each eye-lid; these are called *puncta lachrymalia*. Within the orbit of the eye, above the external angle, there is a hard conglomerate gland, called *glandula lachrymalis;* and situated in the internal angle, before the union of the eye-lids, is a long tubercle, conoidal, and red externally, called *carun-*

cula lachrymalis. This is formed of the folding of the internal coat of the eye-lids, and it has numerous sebaceous glands, from which many small hairs grow.

The bulb of the eye is formed of several coats and humours; the former of which it is our business here only to take notice of. The first is from its hardness called *sclerotica*, from *skleros*, hard. It is the most external coat, white, dense, and tenacious. It is thicker posteriorly than anteriorly. It has an opening anteriorly, in which there is another very transparent circular coat, more convex than the sclerotica, but affixed to it on all sides, and consisting of numerous laminæ, or layers; it is from its transparency called *cornea*, from *cornu*, horn, which it resembles. It is thick, strong, and insensible, and fitted by its transparency to convey the rays of light to the inmost centre of the eye. This coat, and the anterior part of the sclerotica, is covered by the *tunica adnata*, and between both these, there is a cellular membrane, very full of red and transparent vessels, which is the seat of most inflammations of the eye.

Another coat of the eye is placed under the sclerotica, and is called *choroidea*, from *chorion*, on account of its innumerable quantity of vessels, by which it is affixed to the sclerotica. The choroidea consists of numerous small arteries and veins; it passes forwards with the sclerotica, to the beginning of the cornea, where it adheres to the sclerotica by means of a cellular membrane in form of a white fringe, called the *ciliary circle.* It then recedes from the sclerotica, and cornea, and from the ciliary circle, and goes straight downwards, and inwards, forming a round disk, of which the anterior surface is called *iris*, from its various colours, and the posterior *uvea*, from its black grape-like colour. The disk has an aperture in the middle, called *pupil*, which under different circumstances is contracted and dilated.

The third and inmost coat of the eye is called *retina*, from its resemblance to *(rete)* a net. It is an expansion of the pupil of the optic nerve, having very numerous vessels. It arises posteriorly from the

optic nerve; its posterior surface, which is entirely pulpy, adheres to the interior surface of the choroidea; its anterior or internal is composed of more vessels, and lies immediately upon the vitreous substance: one of the humours of the eye passes forward to the ciliary ligament, and adheres to it. This membrane is the true organ of vision.

The following have been used as Constitutional Denominations.

1. Phlegmatic,
2. Plethoric,
3. Bilious,
4. Costive,
5. Lax,
6. Flatulent,
7. Scorbutic,
8. Gouty,
9. Rheumatic,
10. Scrophulous,
11. Hot and cold,
12. Consumptive.

The Phlegmatic.—In these the lungs, stomach, and intestines, are apt to be loaded with too great a quantity of viscid phlegm, from the digestive organs being in too weak a state, and wanting a due secretion of bile; the habit costive; in general cold; subject to chronic coughs, and expectoration of tough viscid phlegm; the circulation of the blood is sluggish; the breathing laborious; the muscular fibres and vascular system are torpid; though corpulent, they very often are gross, and frequently subject to a swelling of the legs.

The Plethoric.—The constitution in plethoric persons is apt to breed a great quantity of blood; they are chiefly of the irritable class, more inclining to the robust and athletic. In these the digestive powers are good, the appetite sometimes voracious, sometimes moderate; frequently hæmorrhages occur, and very often copious evacuations of different sorts; also head-aches of the dull heavy kind, attended with giddiness; they are liable to become often drowsy and sleepy, and are fond of that species of indulgence.

The BILIOUS are such as have a very copious secretion of bile, which is apt to collect in its repository the gall-bladder, without a regular passage into the duodenum; by which means, stagnating there too long, it acquires a degree of acrimony, which, when poured into the intestines, occasions bilious colic, cholera morbus *(a vomiting up and purging of bile,)* a bilious looseness. In bilious persons, the complexion has generally a sallowish cast; they complain frequently of bitterish taste in the mouth, are commonly costive, and have deep-coloured urine, often depositing a yellow sediment; their appetite is very variable, and their digestion, for the most part, weak.

The COSTIVE.—In these constitutions, some of them are naturally so inclined; but if not, it depends on particular states of the intestines, abdominal muscles, and the different viscera that pour forth their contents into the bowels; in these cases, the intestines are either in a state of too great torpidity, or there is a deficiency of the internal fluid, pancreatic juice, or bile, which last may be too inert; or the abdominal muscles may be too relaxed, which occurs sometimes in women who have had several children.

The contrary of which happens in

The LAX; for in them the intestines may be in too irritable a state; slightly moved; or may be too slippery, from an increased discharge of the pancreatic and intestinal glands; or the bile may be too acrimonious; or acrid humours may be too constantly poured into the intestines, and stimulate them to too strong and quick-repeated action.

The FLATULENT are such as have too great a quantity of wind in the habit, in a loose unfixed state, particularly in the stomach and bowels; which is discoverable very often by flying wandering pains, increased on warmth by its rarefaction, by distention of the stomach and intestines, a rumbling noise in the bowels, emissions of wind upwards and downwards; and these may occur from a weak digestion, allowing particular materials to emit their air, and the juices formed from them incapable of re-absorption, from

their not being properly elaborated in the first passages; from being also too tight laced, women often induce this complaint; and by the too common and frequent use of warm clysters; by a relaxed state of the stomach and intestines; and by feeding constantly on flatulent food, and keeping long fasts.

The Scorbutic.—Such are indiscriminately so styled who have the appearances of eruptions on the surface of the skin of different kinds; red pustulous pimples, nettle-rash, or dry scurvy scales; these truly indicate a prevalent acrimony in the habit of some sort; but the true scorbutic acrimony is known by other effects in the habit; black, livid, or yellow spots, on the surface of the skin; tender gums, bleeding on the slightest touch; sallow complexion; rank fetid sweats; loose texture of the fleshy parts, appearing puffy and flabby. The latter owe their origin to the texture of the blood being in a broken or very loose state, whilst the former depend more upon acrid humours in the habit, obstructed, or rather diminished, perspiration, weak digestive powers, and feeding on unwholesome food, or eating and drinking too freely and luxuriously. These, therefore, would be better divided into acrimonious, and scorbutic: the first, where the acrimony of the fluids is indefinite, and cannot be ranged under any known species.

The Gouty are such as are troubled with flying pains, occupying chiefly the small joints of the hands and feet, or having regular fits of that disease, being subject frequently to indigestion, and to be seized with pains of the joint of the great toe, or having pains of the stomach and kidneys, alternating with those of the hands and feet; subject, from the same cause, to be teazed with pains in various parts before the fit of the gout has become regular, or has retroceded, or is misplaced, owing often to debility of the active powers of the constitution, particularly the stomach and vascular system.

Rheumatic.—These are such constitutions as are replete with rheumatic acrimony, which fixes itself in different parts of the machine, chiefly on the large

joints, and runs along the course of the muscles, or fixes itself also on the membranes of the muscles. Sometimes it affects one, sometimes another; it also frequently flies from place to place, assuming different appearances according to the peculiarity of the habit in which it resides, becoming in some acute and inflammatory, particularly in the robust and athletic, who have strong stamina, and are readily irritable; in others, painful and chronic, in constitutions more debilitated.

The SCROPHULOUS are such, in which that taint called *Scrophula* is inherent, manifesting itself by glandular tumors chiefly of an indolent kind, in the neck and other places of the body, where the lymphatic glands are dispersed, particularly in the lungs and mesentery, attacking the fair-complexioned and delicate most commonly; shewing itself also by an enlargement of the upper lip and *sides of the nostrils*, and swelling of the belly, a slight preternatural heat generally attending the whole habit, and sometimes a short tickling cough.

The HOT and COLD depend upon the quantity of blood, in a healthful state, and different degrees of vascular action; if the habit be full, and the vessels are in a state of irritability, the constitution will be of the former class: if there be a paucity of that fluid, and the vascular system be in a torpid state, whereby circulation is not duly performed, it will be of the latter: for where the blood is most superabundant, and the irritability of the vascular system great in degree, there will always be the most heat; and *vice versa*.

The CONSUMPTIVE. — These are generally such whose texture of solids is very delicate, the vascular system irritable, and some degree of acrimony is found in the humours; pale complexioned; narrow chested; long necked; subject to febrile heats, imitating hectic; easily thrown into pulmonic hæmorrhages, and frequently affected with slight tickling coughs; their teeth clear, with an appearance like transparency; their eyes often bright, sometimes towards evening languid; the ends of the fingers rather

bulbous; and the nails curved inwards, particularly when they approach near a morbid state.

In speaking of Constitutions, we have enumerated various distinctions, which are generally adopted, in order to shew what ought to be understood by those different terms; and we would recommend this part of the work to be perused with particular attention; for upon perfectly understanding what is here presented, men may escape a number of errors, into which they might be led by the advice of ignorance, or their own temerity; for it is by regulating the constitutions that we must, in most cases, expect to derive benefit.

Constitutions may likewise be considered as STRONG *and* ROBUST; *or* WEAK, RELAXED, *and* DELICATE.

These form the foundations; but as they may be possessed of greater or less degrees of *irritability*, *torpor*, or *incitability*, and may also vary with respect to the quantity or quality of the fluids, we must advert also to these points.

In STRONG, ROBUST CONSTITUTIONS, the muscular stamina are firm, and well compacted; powerful and agile in motion; the pulse strong and full; the nerves equal and forcible in their influence; the circulation of the blood free, and the texture of that fluid possessed of great tenacity; the complexion healthful, and the whole habit in a state of strong activity.

In WEAK, RELAXED, and DELICATE CONSTITUTIONS, the reverse of these occur; the muscular stamina are weak, imbecile in motion, and soon wearied; the pulse is small and quick; the nerves are irregular and debilitated in their influence; the circulation of the blood is languid, its texture loose; the complexion pale or sallow, and the whole habit is in a state of debility.

Now according to the different degrees of *irritability*, *torpor*, or *incitability*, of which these two are possessed, so will there be different appearances; and so will they be subject to different affections; hence, in the *nervous*, or *incitable*, the constitution is like the latter in a great degree, but the nerves are easily incitable from slight causes, creating spasmodic affections in different parts. People of this constitution are generally timid; have great variability of spirits; and are much subject to hysteric fits, cramps, and flying pains, putting on the appearance of various complaints, according to the parts affected; the urine is commonly pale, sometimes made in small quantities, and then becomes turbid; or in large quantities, and then remains limpid. In these, therefore, the nervous system is in such a state as to be quickly incitable, and readily and frequently thrown into morbid action.

In the *Irritable*, there is a strong propensity in the vascular system, and muscular fibres, to be thrown into a quick state of contraction, the constitution being in an intermediate state between the robust and relaxed, and participating, in some degree, of the nervous. These are subject to have the circulation of the blood readily increased, to flushings in the face, are irascible, or easily moved to anger, and are soon heated by any stimulant taken internally.

Opposite to this constitution is,

The *Torpid*.—In these persons, the circulation of the blood is languid, seems rather to creep or undulate, than to circulate; the extremities are generally cold, and they feel, without any cause very often, internal oppression; dreading imaginary calamities; they are naturally inactive and indolent, unless roused by some pleasurable pursuit; irresolute, mutable, and very often timid in the extreme where any difficulties are to be surmounted; and the habit is generally costive.

Having furnished the most simple view of constitutions, we shall now proceed to that which is more complicated, arising from a combination of some of these.

1. The STRONG, ROBUST, and *Irritable.*—People of this constitution are subject to many inconveniences, chiefly from the rapidity of the blood's motion; they are liable to violent continued fevers, and inflammatory disorders. To prevent which, all excesses of hot or cold air should be avoided; stimulating aliment, high-seasoned dishes, and such as are extremely nutritious; too sudden and violent exercises; repletion, and the more boisterous passions. They should observe temperance in all things, and especially keep free from immoderate drinking, and take care that none of the natural evacutions should be obstructed, such as that of perspiration, urine, and feces. They should have recourse to occasional bleeding, when the head feels loaded, giddy, or when they are drowsy and prone to sleep, or symptoms of general fulness are prevalent; but not use it unnecessarily, or too frequently; and empty the habit now and then by purgatives; they should drink diluting liquors, as water, whey, &c. in general be sparing of animal food, and rather eat freely of vegetable diet: for such persons, a moderate, warm, and moist atatmosphere is the most eligible situation: in fine, nothing should be allowed them that will increase too powerfully the action of the living solids, or occasion too great an increase of the fluids. These constitutions are in general warm.

2. The STRONG, ROBUST, and *Torpid.*—Where, though the stamina are firm in too great a proportion, there is a defect of irritability, the vascular system being in too torpid a state. These require not any particular attention, as from the want of proper sensibility they will not be exposed to feel particular changes arising from common causes, or such as would affect those which are more irritable. These constitutions bear all evacuations well, as they are not apt easily to have their solids too much relaxed, but are rather prone to become plethoric from indulgence, of which they participate too freely, from not feeling those effects which people of different habits so frequently experience. They should endeavour to pre-

vent an over-fulness, either by abstinence or proper evacuations, which they bear in general without inconvenience; though bleeding in these is less adviseable than purging, owing to the torpid state of the system; and which being neglected, should a plethora be the consequence, some of the internal parts of the habit, as the brain, lungs, &c. might be affected by dangerous oppressions. We very often find men of this constitution, for want of timely care, and from indiscretions, afflicted with sudden vertigos or giddiness of the head, coughing or spitting of blood, apoplexy, &c. These are sometimes of a cold habit, though plethoric, and are apt to fall into hypochondriac affections, from visceral accumulations and languid circulation.

3. The Strong, Robust, and *Incitable.*—This constitution sometimes, though more rarely, occurs; and when it does, it generally is united with vascular torpidity. In this there is too great incitability of the nervous system; and people of this habit are subject to a mixture of hysteric and hypochondriac diseases; irascible at trifles; desponding, nearly approaching to melancholy; they are apt to be afflicted with various spasmodic affections, particularly of the throat, intestines, and stomach; sometimes make profuse quantities of pale limpid water; at others, small, but turbid and high-coloured; they are frequently tormented with flatulence, and perplexed with whimsical and inconsistent ideas; the extremities are generally cold; most of the evacuations are lessened, or irregularly performed; sleep is imperfect, they are troubled with frightful dreams, and subject to the *incubus*, or what is called the *night-mare:* all these are derived from the same constitutional sources, when torpor attends; for, from the want of due power in the muscular fibres, the circulation of the blood is not carried on with full freedom to the extremities, the internal parts consequently are loaded; hence in those parts there is an additional fulness, for the stimulus is always in proportion to the quantity of blood flowing to a part, from the evolution of the heat, and the super-

abundance of acrimony; hence the fluids of these constitutions generally abound with acrimony, particularly such as is productive of the nettle-rash, and other eruptions.

In these habits, friction on the extremities, warm clothing, warm bathing, riding on horseback, are very useful; a generous diet, wine, stimulating vegetables, should be used, and food of easy digestion. The mind should be kept perfectly at ease; cheerful company, change of scene, and such other exercises as may divert the attention, and produce a moderate degree of mental hilarity, should be used. As for medicines, they should be such as, at the same time that they allay the incitable power of the nervous system, diffuse a general warmth through the habit; and these given occasionally; as asafetida, musk, vitriolic ether, and camphor; but all opiates must be avoided, because they are apt to render the muscular fibres too torpid; in general, chalybeates may be persisted in, and Bath waters should be recommended.

But where, instead of torpor, *vascular irritability* is a concomitant, besides being subject to inflammatory complaints, and continued febrile affections from slight causes, they are subject to permanent spasmodic affections, to a locked jaw, and continued muscular rigidity. In these constitutions, warm baths are peculiarly useful, gentle and constant exercise, cooling diet, and copious dilution with aqueous liquids, thin acescent wines, milk, and vegetable diet; evacuations of all kinds should be constantly and moderately produced, particularly perspiration, and the body should never be costive: I have said moderately, because in endeavouring to abate the irritability of the system, we must be careful not to increase the incitability, which is apt to be the case from evacuations too copious. Opiates are in these habits extremely useful, and may be freely given under particular circumstances.

1. The Weak, Relaxed, Delicate Habit, joined with too great *Incitability;* and this generally

occurs in those that have also *too great a share of irritability.* These constitutions are subject to painful and spasmodic diseases; and the more delicate sex, so circumstanced, are prone to hysteric affections, from the relaxation and irritability of their habits. They also are constantly attacked, on every slight cold, with slow fevers, and have their digestive powers loaded with *different kinds of ill-digested matters in the stomach and bowels*, making their way into the habit in this noxious form.

To these, a dry clear air is peculiarly necessary; moderate exercise, particularly riding; cold bathing, and chalybeate waters; animal food, easy of digestion, free from fat; and a temperate use of astringent wines. Vegetables should be administered sparingly, and those of the less flatulent kinds; food and liquids, viscid and tenacious, such as flour puddings, potatoes, oysters, strong soups, and malt-liquors, ought to be prohibited. Every thing calculated to strengthen the tone of the system, and preserve it in an equal state, ought to be used, and all things likely to weaken it must be avoided. Cheerful company and moderate exercise are serviceable, but pursued too freely, the reverse; for all fatigues, both of body and mind, are prejudicial. The custom of taking vegetable acids too copiously is also pernicious, as is hot tea, or any thing drank too warm, for these contribute to relax and load the stomach and intestines, with foul viscid materials, which produce therein internal stimulus, create flatulence, and communicate general irritability through the system. Blood should never be taken from people of this habit, but upon the most urgent occasions, and then only sparingly, in which *cupping is preferable to the lancet;* and it is safer to take it away at two operations than at one, some little distance of time from each other, if more than six ounces should be required. All sudden changes should be avoided with the utmost caution, either with respect to clothing or diet, and the mind kept free from anxious cares; hence waters impregnated with *iron* may be drank: in fine, every thing ought to be advised

which, in a moderate degree, can exhilarate the spirits, and contribute to give strength to the solids. These constitutions are generally warm, subject to irregular flushing heats, and have for the most part no small degree of acrimony in the habit. But there are some who possess too great a share of torpidity, and then they form that kind.

2. Where a WEAK RELAXED HABIT is joined with a *Defect* of *Sensibility*; persons who are subject, not only to nervous affections, but to chronic and destructive diseases; for the circulation in all these is languid, and the absorbent system acts not with proper freedom. Hence will arise those complaints which depend on an acrimonious state of the humours, and an accumulation of the fluids in the whole or particular parts of the system; as dropsy, jaundice, corpulency, scorbutic complaints, green-sickness (so called), obstructed menses, glandular tumors, &c.

In these torpid habits, stimulants are useful, and also occasional evacuants; to these a dry air and high situation are most suitable, with a generous diet of the more pungent kind; such as the juices of the older animals, fish, mustard, horseradish, cabbage, and all of that class: brisk exercise on horseback, emetics, and frequent purging, in order to shake the vascular and glandulous system, prevent accumulations, remove obstructions, hinder the bile from stagnating, and the mucous fluids from collecting: all the natural evacuations should be kept free from suppression, to accomplish which, the system ought to be perpetually roused to action; hence indolence and indulgence in bed is to be particularly avoided; the thinner stimulating liquids, as white wine diluted with water, should be the common beverage; and the mind should be kept in a state of cheerful activity, free from all gloomy and desponding reflections.

Having finished what we meant to say on constitutions, as far as the moving solids were concerned, we shall now pursue the same subject with respect to the fluids.

The BLOOD offends us by its *too great quantity or state of acrimony.* From the too copious state of this fluid, a variety of complaints may arise: and therefore when symptoms of oppression appear from this cause, which may be generally known by languor, a sense of weight or fullness in the head, when rising in the morning or in stooping, and fullness of the pulse, abstinence, indulging less than usual in sleep, increasing the natural evacuations, and using more exercise, will effectually reduce the body to its proper standard, if these things be tried in due time, and persevered in for a proper period; the diet should be the least nutritious, more of the vegetable than of the animal class. Should *a want of a proper quantity of blood* be induced by any cause, nutriment should then be given of the most quick and easy digestion, as broths made of the flesh of older animals, thin jellies, and the flesh of young animals, as chicken, rabbits, lamb, veal, &c. and in such quantities as can be readily converted into chyle. It is a mistaken notion, to suppose the larger the proportion of nutrition thrown into the habit, the sooner it will be recruited; the reverse will happen; for by such means the digestive powers being overloaded, will be weakened, and consequently a small portion be prevented from being properly assimilated, which must be before it can answer the purposes intended. On the contrary, if so much be only given as those powers can conquer, they will gain fresh strength every day, by the application of that which has been converted into a nature adapted to the end proposed; and this quantity may be repeated as often as the constitution requires it. By this method nature may be further assisted by the use of bitters; as gentian, orange-peel, quassia-wood, slight chalybeates, gentle aromatics, and such like.

But the blood may become ACRIMONIOUS, and this acrimony may be considered of different natures. They have been divided into *acid*, *putrescent*, and *muriatic*, the last so called from *muria*, brine, a liquor made of common salt, which this muriatic humour is supposed to resemble.

The Acid is supposed to arise from weak bowels, and is particularly observable in infants. To prevent which, we must endeavour to strengthen the digestive powers, that they may make good chyle; hence, after clearing the bowels with sal polychrest, or small doses of calomel and rhubarb, and gentle emetics, slight doses of chalybeates may be given, mixed with rhubarb, to keep the bowels gently open; weak broth once or twice a day; panada, with a small portion of some agreeable aromatic, well boiled; and such things as have in themselves the least tendency to acidity; friction on the stomach, belly, legs, and feet, with smart exercise, will be highly serviceable; as these will invigorate the system, promote a brisk circulation, and increase the action of those organs intended to promote the formation of good chyle.

The Putrescent, (where the fluids tend to a state of putridity,) shews itself generally by the face being puffed up, and tinged with a hue somewhat approaching to livid; the breath being offensive; the gums spongy, and bleeding on the slightest touch. Here fresh air; austere wines, such as give a sense of roughness or astringency to the taste; vegetable diet; ripe fruit; water, impregnated with fixed air; smart motion, and corroborating bitters; with abstinence from animal food; promise fair to prevent the effects, which might otherwise arise, by checking the putrefactive disposition. Moist warm situations should, in this case, be particularly avoided, and living in close places much crowded with inhabitants; for nothing conduces more to bring on and increase such a state of constitution than these, by relaxing the solids, and furnishing a constant supply of putrescent effluvia.

The Muriatic is indicated by hot eruptions, which itch much, attended with uncommon thirst and flushing heats; to alleviate which, the sulphurous saline waters are recommended, particularly those of Harrowgate and Thorp-Arch; avoiding at the same time all heating acrid food, such as turtle, high-seasoned dishes, and rich soups. Whey and milk, in these cases, are extremely beneficial; also garden scurvy-

grass, water cresses, and Seville oranges. A diet-drink, made of guaiacum sawdust, three ounces; raisins of the sun, two ounces; sassafras-wood, shaved liquorice sliced, each an ounce; water, ten pints: the guaiacum and raisins are to be boiled over a gentle fire, to the consumption of one-half; adding, towards the end, the sassafras and liquorice; strain off the liquor, and, having suffered it to rest for some time, pour off what is clear. A quarter of a pint of this may be taken two or three times a day.

All repellent lotions are dangerous; for if the acrimony cannot be corrected or carried out of the habit, its most salutary situation must be external; and, perhaps, it may be the only means which nature has to unload the habit, or prevent the deleterious effects which would be occasioned were any of the more noble organs subjected to the depredation of humours so inveterate. To valetudinarians of this description, a cool air should be recommended, and summer situations near the sea-coast; all salted meats should be avoided; the body kept cool by saline aperients, and the mind unruffled by violent passions.

There are also humours which only affect some parts of the constitution, and produce particular diseases, from a peculiar species of morbific matter; and these are either generated in the habit spontaneously, or arise from errors in diet, indulgencies, or irregularities with respect to the management of the animal economy; but these, if incapable of being eradicated, may be alleviated, and in some degree prevented.

The first we shall mention is the Gout; respecting which, though so painful, so dangerous, and common a malady, it may be weakened in its attacks, even in those who have been long subject to it, by *temperance*. Adhering strictly to a milk diet, has alone in many cases put a stop to returns of the gout. Regularity of living, with proper exercise; the abstaining from wine and high-seasoned dishes, pickles and other incentives, that stimulate the appetite, and occasion men to over-load, and weaken the tone of the stomach and digestive powers, have rendered this malady

abundantly more mild in its paroxysms. Persons subject to the gout, should avoid every excess that has the least tendency to reduce the habit below the proper standard of health, either in eating, drinking, or venereal enjoyments; for it is by the slavish and constant pursuit of these particulars, and the great indulgence which they allow themselves, that we see so many martyrs to gouty devastation.

Early rising, moderate exercise, mild food, abstinence from inebriating liquids, or a very moderate use of them, will ever be succeeded with such consequences as will amply repay us for philosophic forbearance. People of this constitution ought to refrain from weighty cares, the labours of the mind, much thought, anxiety, and solicitude: they should avoid all vexation particularly, as nothing more disposes to bring on fits of the gout, by occasioning crudity and indigestion, from weakening and rendering the action of the stomach too torpid.

Various modes have been recommended for preventing the accession of the gout; but what seems to have gained credit, from the experience of several intelligent men, is the use of sulphur; of which a drink is made by impregnating water with a proper proportion of it: and this has proved salutary, in not only mitigating fits of the gout, but, some say, of totally preventing their return. Indeed, if we consider the action of sulphur on the habit, we shall not be averse to think favourably of its use.

Dr. Cullen says, "It is certainly a mild and safe cathartic, never producing any considerable evacuation, but keeping up the natural secretion by the intestines, without any irritating or heating effect." And Dr. Lewis—"That pure sulphur, in doses of from ten grains to a drachm, or more, gently loosens the belly, and promotes perspiration; it seems to pass through the whole habit, and manifestly transpires through the skin, as appears from the sulphurous smell of those who have taken it, and silver being stained in their pockets to a blackish hue, as by the vapour of sulphurous solutions."

But in this, as in every other constitution, we must be directed in our specific course by the particular nature of the habit, according as it tends to one or the other, as before specified. Hence in this case we must sometimes use an abstemious regimen, altogether avoiding animal food; sometimes allow its moderate use; proportioning the degrees of exercise to the degrees of strength of the system; always prohibiting the use of wines and other fermented liquors, except in case of great debility or long habit; and preserving the strength of the stomach and digestive organs.

Rheumatic.—In these, the same rules will hold good as in the former, and not be attended with dissimilar effects, and those very often more certain; for it has sometimes been prevented by wearing a flannel shirt, which keeps up an increased degree of insensible perspiration, and using the cold bath or sea-bathing without interruption.

That disease, which in inland countries seldom or never affects the natives, called the Putrid Scurvy, by exercise, warm clothing, drinking acescent wines, and living chiefly on fresh vegetables, or eating freely of them, will be prevented. It generally affects those who live on sea-coasts, and feed on fish.

Where we have reason to fear a Scrophulous Taint in the habit, those means which give strength to the solids, begun in time, bid fair to act as a preventive, at least to hinder the offensive matter from producing its unhappy effects in a violent degree.

Living in a free country air, particularly on the sea-coast, taking exercise and nutritious diet, a moderate use of wine, and a course of gentle chalybeates, or drinking chalybeate waters once or twice a year, might answer the intention. Indeed, sea-air alone is so highly beneficial, that scrophulous patients have been, by living on the sea-coast, totally cured of the disease, without the aid of any other remedy.

Where there is a Redundancy of Bile, those constitutions, we have said, are called *bilious*, and are attended with a bitter or sour taste in the mouth. The

stomach and bowels of such should be always kept clear, by taking aperient medicines every now and then, and such as are not likely to leave the body costive after the operation. In these habits, aloes and soap are useful, castor oil, rhubarb and magnesia mixed together. Fat and oily substances should be sparingly, if at all used. Exercise should be persisted in, and some species of vegetables preferred to any other, as the dandelion, endive, and such like.

The stomach and bowels are apt to be loaded with different kinds of noxious materials, which are *acid*, *rancid*, or *viscid;* these generally arise from weak digestive powers. Emetics and purgatives are now and then to be prescribed on that account, and those things which give force to the weakened organ.

If the *acid* be most prevalent, which will discover itself by sour belchings and heartburn, animal diet is most proper; crude vegetables, milk, butter, and other oily substances, should be avoided, and also fermented liquors; the most proper drink is water alone, or having ginger infused in it. Stomachic bitters, with elixir of vitriol, or bark; absorbent powders, as hartshorn burnt and prepared, chalk, magnesia, are useful for immediate relief. In all relaxations of the stomach, we must aim at giving it strength and activity, and promoting the expulsion of its contents.

If the eructations should be *rancid*, or occasion a *putrid offensive taste, like that of bad eggs*, and nausea attend, with the throwing up of liquids that will blaze in the fire like oil, a diet containing a large proportion of acescent vegetables will be proper, with a very sparing quantity of butter and oil; made dishes should not be allowed, nor rich sauces, or much gravy; acid fruit, such as are ripe, may be taken with safety.

But if the matter should be *viscid* and *ropy*, such things as will assist in carrying it off are the most eligible, as calomel and rhubarb occasionally, or aloetic purges, or Rufus's pills, with Venice soap: exercise, chiefly riding, is necessary; and all things which have in their own nature too tenacious a viscidity, such as puddings, thick gruels, potatoes, should be avoided: the

flesh or juices of older animals are preferable to those of the younger sort, and also vegetables of the warmer class, mustard, horseradish, water-cresses, &c.

Having now delivered what appeared to be necessary for understanding the nature of constitutions in their *simple* and *mixed state*, we would observe that the eye should not only be carried to these constitutional points in cases where prevention of diseases is studied, but particular attention should be paid to them in diseases, wherein they will be found altered from their natural state, and some different combinations taking place from the effects of the malady itself; which deviations, when discovered, should regulate the conduct; and it will be perceived, that medicines, highly proper in the beginning of a complaint, are as improper in the conclusion, and *so on the contrary*; and this alone owing to the alteration made in the habit: for instance, in inflammatory remittent fever, where *at the onset* the constitution is possessed of great firmness, strong vascular irritability, and equable nervous incitability, to give bark would be madness, because it would too much increase the already too heightened power, and occasion the worst consequences; though at the latter end the same is a *cure*, owing to the constitution being altered by the violence of the disease, which lessens muscular firmness, and vascular strength, and induces too great nervous incitability: all which are conquered by bark, augmenting the strength and activity of the system.

The brief account of the human body, and the difference of constitutions, contained in the preceding pages, seemed necessary as a ground-work for our readers. We shall now proceed to select from the best authors, a minute account of such diseases and remedies as are most common in families, in order to make our work as useful as possible. This account will be given, stript of technical terms as much as possible; and where it may be expedient to retain any, they shall be explained, and made easy to common readers.

Of the Management of Children from the Birth.

THE management of children in infancy is a matter of real importance. If they be brought up in a plain simple manner, the consequences will be manifest on their health, beauty, strength, and spirits: nay, it should also be remembered, that all the faculties of the mind are well known to be intimately connected with the organs of the body. In the state of infancy the foundation of a good or bad constitution is generally laid; it is therefore of the utmost importance that parents should be well acquainted with the various causes which may produce diseases in their offspring.

Were any evidence necessary to support the assertion, that too little attention is paid to mankind in their infant state, we might produce the annual register of the dead, from which it is evident that nearly one-half of the children in the United Kingdom die under twelve years of age. The fact is so obvious, and we are so much accustommed to observe it, that it is now considered as a natural evil. But this is not the case. Nature provides for her own support in every age: and were our children treated in infancy as they should be, probably the young of the human species would become the victims of the grave in no greater proportion than the young of other animals. Children bear pain and disease much better than grown persons. When was there a lamb, or a bird, that died because it was young? These are under the immediate care of unerring Providence, and they thrive accordingly.

Among the lower classes of mankind, especially in the country, disease and mortality are not so frequent either among the adult or their children. The mother, who has only a few rags to cover her child loosely, and little more than her own breast to feed it, sees it healthy and strong, and very soon able to shift for itself: while the heir and hope of a great family lies labouring under a load of finery that over-powers

his body, abhorring the dainties with which he is crammed, till at length he dies a victim to maternal tenderness.

Perhaps it is the wisdom of the Divine dispensation, that our offspring should enter the world in a more helpless condition than any other animal. The brute creation, under the guidance of instinct, a kind of substitute for reason, either abandon their young in the instant of their birth, or foster them with unremitting care and unerring management. But, exposed to the open air and the inclemencies of the seasons, bountiful Providence has provided them with necessary covering and suitable food, and they are in much less danger from the attacks of disease than the depredations of voracious invaders. As their wants are few, tenderness and attention are required to be but of short duration; they speedily ripen into maturity; are enabled to supply their own necessities; and the ties of material and filial affection are quickly dissolved, leaving no trace behind of the once intimate connection.

But to man, as at first formed in the image of God, endowed with the faculty of reason, and accountable for its exercise, more important cares are allotted. Conceived in sin, and brought forth in sorrow, the little stranger no sooner makes his appearance in this world of woe, than he is surrounded with dangers, and threatened with disease; maladies of a thousand kinds present themselves to awaken parental tenderness, and excite those warm affections which are destined to continue, both as a natural impulse and duty, to the end of our lives.

Yet the want of care is not more destructive to the human species in the infant state, than an immoderate and excessive exercise of it. Ignorant nurses, and other assistants, too frequently and officiously introduce such a vast number of articles, wholly unnecessary and often injurious, in the food, clothes, and medicine of infants, that the loss of great numbers may be attributed to this ill-applied and over-busy zeal.

Another principal cause of the destruction of infants, is the want of that congenial nutrition which Providence has provided for their sustenance, and the substitution of foreign aliment, often unwholesome, and always unnatural.

It will not be denied, that the infant partakes of the constitution of his parents; and that as the mother has the largest share in his formation, so he will be most apt to resemble her in habit of body. This being admitted, what can equal the absurdity of robbing him of the food, which must of all others be most adapted to his support, and supplying him with the milk, habits, and disorders of a stranger! or, what wretched influence can prevail on a mother to abandon the care of her child to nurses and servants, and devote him to probable destruction! depriving herself of one of the most delightful offices that falls within her sphere, and idly bartering, for unsubstantial amusements, the solid satisfaction of cherishing, protecting, and forming, the bodies and minds of a healthful, beautiful, and grateful offspring! Nor is the evil confined to the child thus torn from his mother's breast: the infant, who claims the sustenance thus sold to the nursling, presents us another sufferer; robbed of nourishment and attendance, and generally attempted to be brought up by hand, he pines for a few months, and then dies in a state of emaciation, occasioned by actual want; or if he should have strength and constitution enough to struggle through his infancy, attains the years, without the conditions, of manhood, and creeps through life feeble, sickly, and unhappy. And thus, too often, from vanity and levity on the one hand, and a mercenary spirit on the other, is the community deprived of two useful members at once; or a miserable exchange made, of beauty and health, for deformity and decrepitude.

It is however by no means just to suggest that every mother is capable of suckling her own child, or that all mothers are alike capacitated for this necessary task: many cases offer in which it is impracticable, and others in which it would be imprudent, and

equally dangerous to the mother and infant. Women who, from delicate habits or constitutions, are subject to nervous or hysteric complaints, are certainly unqualified to obey the calls of Nature in the performance of a duty so tender, agreeable, and essential. But the mere act of giving suck is by no means to be considered as the only business of the mother: a variety of other circumstances demand her attention; and the future health, happiness, and comfort of her child, depend on her care and management in this early period of his existence. Nor is the father to be excused from his part in this amiable duty. Female educations are little calculated to form mothers, nurses, or mistresses of families. Not one wife in a thousand when she brings a child into the world, has the smallest idea of the charge committed to her hands: the husband is generally better informed, at least from reading; and it is neither beneath his dignity, nor inconsistent with his province, to lend his assistance in whatever concerns the corporal or mental welfare of the being which he has contributed to produce.

To supply the child with wholesome, natural, and nourishing food, and with warm, comfortable, and seasonable clothing; to give him such a degree of exercise as the tender frame must require; to watch the approach of disease, and apply such preventives as offer; to attend the progress of distemper, and administer the remedies that are prescribed; are offices of a nature so truly maternal, that the interference of any other hand should in very few cases be admitted. In the very important article of cleanliness, the mother's eye is above all things necessary; nurses and servants are but too apt to relax in their regards to the salutary regulations of neatness and delicacy; yet we may venture to affirm, that many lives are lost by negligence in this particular; and that clean water, clean linen, and constant attention to the evacuation of infants, would prevent many diseases, and in general confirm and strengthen the most robust and best-formed constitutions.

The milk of the mother, and, where for the foregoing reasons that cannot be applied, of a young, wholesome, and sober nurse, is the food apparently pointed out for an infant by Providence; which has in general provided and prepared a quantity proper for his sustenance; and all endeavours to bring up children without the breast, are such absurd innovations on its dictates, that it is by no means to be wondered at, that, in such attempts, not one in fifty succeeds; and that even where they seem to thrive for a few weeks or months, breeding the teeth, the small pox, and other diseases to which young children are peculiarly liable, in frequent instances prove fatal to them.

Children commonly shew a disposition to suck very shortly after their birth; and they should unquestionably be immediately indulged, if the mother's milk begins to flow into the breast: and should it be slow in its progress, the natural industry of the infant will speedily supply the deficiency. The first milk he can draw, on being put to the breast, is the best medicine in the world to cleanse his little stomach and bowels of the matter acquired in the womb, and at the same time it contributes to the safety of the mother, by preventing milk-fevers, inflammations, and other complaints incident to women in child-bed.—But if the breast-milk cannot be speedily obtained, a little oatmeal gruel or thin pap, mixed with new milk, in equal quantity, or rather water, with the addition of a little moist sugar only, without wine or spice, is the only food that can be given with safety, and without incurring the danger of heating the blood and producing gripes, by overcharging the stomach. Nor will the child need much other food of any kind for the first three or four months, if the mother or nurse be in health, and has a sufficient quantity of milk. The *quantity* of food, though not of equal importance with the *quality* of it, is yet an object of great attention: an over quantity of food produces sluggishness, and a habit of unhealthiness. The best rule that can be given, is to feed the child often with moderate

quantities; the contrary practice is destructive to the constitution, and should be carefully avoided. A certain degree of regularity as to the times of giving food, is of great utility; as well as a strict regulation, that no more be offered to an infant after it discovers any tokens of loathing.

Animal food should be given to children with a very sparing hand. They should not be suffered to taste it till they have teeth; nor should they be permitted to take it in any considerable quantity till after they are weaned. Strong broths, and soups, made dishes, very fat meats, salted, smoked, and high-spiced provisions, should be totally banished from the bill of fare for children; and strong and fermented liquors of every kind, should be avoided with the same strict attention. Light plain and simple food, in moderate quantities, preserving a proportion of solids and fluids, and clear, pure and unmixed water, will lay in such a stock of health and strength, as will generally enable the infant to combat the various distempers to which it is liable; and such a regimen will disarm the measles, hooping-cough, and other inflammatory disorders, of the terrors with which they are usually accompanied. But if some other drink must be given to them, let it be milk and water, whey, small-beer of a proper age and fineness, or a very small portion of wine mixed with water: the latter, however, is in most cases much better omitted.

From the very liberal use of butter, children should in general be restrained. Honey, or a small quantity of preserved fruits, particularly raisins, may be substituted in its place, except the constitution be bilious; in that case, neither honey nor preserves should be given on any account. The former is cleansing, and efficacious in the prevention of worms, and those eruptive complaints to which children are subject. Ripe fruits, in moderate quantities, and of particular kinds, such as strawberries, raspberries, currants, and apples, far from being injurious to children, may in many cases produce very good effects. They serve to cool and correct hot and acrimonious humours, promote

digestion, and keep the body from being costive. But great care should be taken that they are not indulged with them to excess: in that case they occasion gripes, wind, and surfeits. But we would by no means insinuate that it is necessary to confine children to any constant course of food. If regard be had to the nature of their sustenance, it is of little consequence how often it is varied in form or substance. The appetite may pall by a continual repetition of the most admired dish, and a change may be as necessary as restrictive cautions against excess.

Various opinions prevail with respect to the age at which the child should be weaned. Some recommend six months as the critical time; others prefer nine months; and instances occur of very healthy families of children, who have been accustomed to suck a full year. The best direction that can be given on this subject, is to consult the state of health of the mother and infant, paying particular regard to the time of cutting teeth. It is cruel, and in a great degree dangerous, to deprive an infant of the food it can attain with most ease, at the moment it is struggling under an operation, painful in its nature, and frequently alarming in its consequences: yet, if the health of the mother requires her to wean the child, in the time of cutting teeth, she ought not to hesitate or delay doing it—no, not one day.

The next material article in the management of infants, which falls under our consideration, is cleanliness; a duty of such indispensable necessity, that from the neglect of it arises, we are persuaded, many of those diseases which carry off children in the first stages, and many of those which attend them through the course of a life rendered peculiarly painful through the want of attention in the outset of it. It is astonishing, that a circumstance of such immense importance should be so little regarded; and that a principal ingredient in the composition of health and beauty should be so frequently omitted, whilst the fond mother eagerly pursues less effectual means to obtain for her darling child these invaluable blessings!

From the birth, the child should be regularly accustomed to a daily washing, from head to foot, in cold water. This may be done from a bason, without immersion, care being taken not to omit any part of the body, and to wipe it very dry with a soft linen cloth. By the constant use of this species of cold bath, all disagreeable smells will be taken off; galls, excoriations or stripping of the skin, and many diseases which often appear on the surface of the body, will be prevented, and the child will acquire strength enough to resist the attacks of colds, and such disorders as are in general produced by the inclemencies of the air, or the changes of the seasons: for in the habit of acquiring such disorders in early infancy, originate frequently rheumatisms, sciatics, and other chronic complaints, which are usually attributed to very different causes, but are for the most part owing to the want of proper management in this first period of our lives.

Combing or brushing the heads of infants should by no means be neglected. They are apt to acquire a kind of scurf beneath the hair, which stops the pores, and is productive of head-ache and weak eyes; to which, from the mere omission of this useful operation, most young children are subject: but if a comb be used, it should be a very fine one, with a very tender hand, in the performance of this task.

Of the Clothing of Children.

The clothing of an infant is so simple a matter, that it is surprising how any person should err in it; yet many children lose their lives, and others are deformed by inattention to this article.

In most parts of Britain, the practice of rolling children with many bandages is now, in some measure, laid aside; but it would still be a difficult task to persuade the generality of mankind, that the shape of an infant does not entirely depend on the care of the midwife. So far, however, are all her endeavours to mend

the shape from being successful, that they constantly operate the contrary way, and mankind become deformed just in proportion to the means used to prevent it.

The very feelings of infants tell us, they ought to be kept easy and free from all pressure. They cannot indeed tell their complaints; but they can shew signs of pain; and this they never fail to do, by crying, when hurt by their clothes. No sooner are they freed from their bracings, than they seem pleased and happy; yet, strange infatuation! the moment they hold their peace, they are again committed to their chains.

If we consider the body of an infant as a bundle of soft pipes, replenished with fluids in continual motion, the danger of pressure will appear in the strongest light. Nature, in order to make way for the growth of children, has formed their bodies soft and flexible; and lest they should receive any injury from pressure in the womb, has surrounded the fetus every where with fluids. This shews the care which Nature takes to prevent all unequal pressure on the bodies of infants, and to defend them against every thing that might in the least cramp or confine their motions.

Even the bones of an infant are so soft and cartilaginous, that they readily yield to the slightest pressure, and easily assume a bad shape, which can never after be remedied. Hence it is that so many people appear with high shoulders, crooked spines, and flat breasts, who were as well proportioned at their births as others, but had the misfortune to be squeezed out of shape by the application of stays and bandages.

Pressure, by obstructing the circulation, likewise prevents the equal distribution of nourishment to the different parts of the body, by which means the growth becomes unequal. One part grows too large, while another remains too small; and thus in time the whole frame becomes disproportioned and misshapen. To this we must add, that when a child is cramped in its clothes, it naturally shrinks from the part that is hurt; and, by putting its body into unnatural postures, it becomes deformed by habit.

Deformity of body may indeed proceed from weakness or disease; but in general, it is the effect of improper clothing. Nine-tenths, at least, of the deformity among mankind must be imputed to this cause. A deformed body is not only disagreeable to the eye, but by a bad figure both the animal and vital functions must be impeded, and of coarse health impaired. Hence few people remarkably misshapen are strong or healthy.

The new motions which commence at the birth, as the circulation of the whole mass of blood through the lungs, respiration, the peristaltic motion, &c. afford another strong argument for keeping the body of an infant free from all pressure. These organs not having been accustomed to move, are easily stopped; but when this happens, death must ensue. Hardly any method could be devised more effectually to stop these motions, than bracing the body too tight with rollers and bandages. Were these to be applied in the same manner to the body of an adult for an equal length of time, they would hardly fail to hurt the digestion, and make them sick. How much more hurtful they must prove to the tender bodies of infants, we shall leave any one to judge.

Whoever considers these things will not be surprised that so many children die of convulsions soon after the birth. These fits are generally attributed to some inward cause; but, in fact, they oftener proceed from our own imprudent conduct. I have known a child seized with convulsion-fits soon after the midwife had done swaddling it, who, upon taking off the rollers and bandages, was immediately relieved, and never had the disease afterwards. Numerous examples of this might be given, were they necessary.

It would be safer to fasten the clothes of an infant with strings than pins, as these often gall and irritate their tender skins, and occasion disorders. Pins have been found sticking above half an inch into the body of a child, after it had died of convulsion-fits, which in all probability proceeded from that cause.

Children are not only hurt by the tightness of their

clothes, but also by the quantity. Every child has some degree of fever after the birth; and if it be loaded with too many clothes, the fever must be increased. But this is not all; the child is generally laid in bed with the mother, who is often likewise feverish; to which we may add the heat of the bed-chamber, the wine, and other heating things, too frequently given to children immediately after the birth. When all these are combined, which does not seldom happen, they must increase the fever to such a degree as will endanger the life of the infant.

The danger of keeping infants too hot will further appear, if we consider, that, after they have been for some time in the situation mentioned above, they are often sent into the country to be nursed in a cold house. Is it any wonder, if a child, from such a transition, catches a mortal cold, or contracts some other fatal disease? When an infant is kept too hot, its lungs, not being sufficiently expanded, are apt to remain weak and flaccid for life: hence proceed coughs, consumptions, and other diseases of the breast.

It would answer little purpose to specify the particular species of dress proper for an infant. These will always vary in different countries, according to custom and the humour of parents. The great rule to be observed is, *that a child have no more clothes than are necessary to keep it warm, and that they be quite easy for its body.*

Stays are the very bane of infants. A volume would not suffice to point out all the bad effects of this ridiculous piece of dress, both on children and adults. The madness in favour of stays seems, however, to be somewhat abated; and it is to be hoped the world will, in time, become wise enough to know, that the human shape does not solely depend upon whale-bone and bend-leather.

I shall only add, with respect to the clothes of children, that they ought to be kept thoroughly clean. Children perspire more than adults; and, if their clothes be not frequently changed, they become very hurtful. Dirty clothes not only gall and fret the ten-

der skins of infants, but likewise occasion ill smells; and, what is worse, tend to produce vermin and cutaneous diseases.

Cleanliness is not only agreeable to the eye, but tends greatly to preserve the health of children. It promotes perspiration, and, by that means, frees the body from superfluous humours, which, if retained, could not fail to occasion disease. No mother or nurse can have any excuse for allowing a child to be dirty. Poverty may oblige her to give it coarse clothes; but if she does not keep them clean, it must be her own fault.

Of the Food of Children.

Providence not only points out the food proper for an infant, but actually prepares it. This, however, is not sufficient to prevent some persons, who think themselves wiser than Nature, from attempting to bring up their children without her provision. Nothing can shew the disposition which mankind have to depart from Nature more than their endeavouring to bring up children without the breast. The mother's milk, or that of any healthy nurse, is unquestionably the best food for an infant. Neither art nor nature can afford a proper substitute for it. Children may seem to thrive for a few months without the breast; but when teething, and other diseases incident to childhood, come on, they generally perish.

A child, soon after the birth, shews an inclination to suck; and there is no reason why it should not be gratified. It is true, the mother's milk does not always come immediately after the birth; but this is the way to bring it: besides, the first milk that the child can squeese out of the breast answers the purpose of cleansing better than all the drugs in the apothecary's shop, and at the same time prevents inflammations of the breast, fevers, and other diseases incident to mothers.

It is strange, how people came to think that the first thing given to a child should be drugs. This is beginning with medicine by times, and no wonder if they generally end with it. It sometimes happens, indeed, that a child does not discharge the meconium so soon as could be wished: this has induced physicians, in such cases, to give something of an opening nature, to cleanse the first passages. Midwives have improved upon this hint, and never fail to give syrups, oils, &c. whether they be necessary or not. Cramming an infant with such indigestible stuff as soon as it is born, can hardly fail to make it sick, and is more likely to occasion diseases than to prevent them. Children are seldom long after the birth without having passage both by stool and urine; though these evacuations may be wanting for some time without any danger. But if children must have something before they be allowed the breast, let it be a little thin water pap, to which may be added an equal quantity of new milk: or rather water alone, with the addition of a little raw sugar. If this be given without any wine or spiceries, it will neither heat the blood, load the stomach, nor occasion gripes.

Upon the first sight of an infant, almost every person is struck with the idea of its being weak, feeble, and wanting support. This naturally suggests the need of cordials. Accordingly wines are universally mixed with the first food of children. Nothing can be more fallacious than this way of reasoning, or more hurtful to infants than the conduct founded upon it. Children require very little food for some time after the birth; and what they receive should be thin, weak, light, and of a cooling quality. A very small quantity of wine is sufficient to heat and inflame the blood of an infant; but every person, conversant in these matters, must know that most of the diseases of infants proceed from the heat of their humours.

If the mother or nurse has enough of milk, the child will need little or no other food before the third or fourth month. It will then be proper to give it, once or twice a day, a little of some food that is easy of

digestion; as water-pap, milk-pottage, weak broth with bread in it, and such like. This will ease the mother, will accustom the child, by degrees, to take food, and will render the weaning both less difficult and less dangerous. All great and sudden transitions are to be avoided in nursing. For this purpose, the food of children ought not only to be simple, but to resemble, as nearly as possible, the properties of milk. Indeed milk itself should make a principal part of their food, not only before they are weaned, but for some time after.

Next to milk, we would recommend good light bread. Bread may be given to a child as soon as it shews an inclination to chew; and it may at all times be allowed as much plain bread as it will eat. The very chewing of bread will promote the cutting of the teeth, and the discharge of saliva, while by mixing with the nurse's milk in the stomach, it will afford an excellent nourishment. Children discover an early inclination to chew whatever is put into their hands. Parents observe their inclination, but generally mistake their object. Instead of giving the child something which may at once exercise its gums, and afford it nourishment, they commonly put into its hands a piece of hard metal, or impenetrable coral. A crust of bread is the best gum-stick. It not only answers the purpose better than any thing else, but has the additional properties of nourishing the child, and carrying the saliva down to the stomach, which is too valuable a liquor to be lost.

Bread, besides being used dry, may be many ways prepared into food for children. One of the best methods is, to boil it in water, afterwards pouring the water off, and mixing with the bread a proper quantity of new milk unboiled. Milk is both more wholesome and nourishing this way than boiled, and is less apt to occasion costiveness. For a child farther advanced, bread may be mixed in veal or chicken broth, made into puddings, or the like. Bread is a proper food for children at all times, provided it be plain, made of wholesome grain, and well fermented; but

when enriched with fruits, sugars, or such things, it becomes very unwholesome.

It is soon enough to allow children animal food when they have got teeth to eat it. They should never taste it till after they are weaned, and even then they ought to use it sparingly. Indeed, when children live wholly on vegetable food, it is apt to be sour on their stomachs; but, on the other hand, too much flesh heats the body, and occasions fevers and other inflammatory diseases. This plainly points out a due mixture of animal and vegetable food as most proper for children.

Few things prove more hurtful to children than the common method of sweetening their food. It entices them to take more than they ought to do, which makes them grow fat and bloated. It is pretty certain, if the food of children were quite plain, that they would never take more than enough. Their excesses are entirely owing to nurses. If a child be gorged with food at all hours, and enticed to take it, by making it sweet and agreeable to the palate, is it any wonder that such a child should in time be induced to crave more food than it ought to have?

Children may be hurt by too little as well as too much food. After a child is weaned, it ought to be fed four or five times a day; but it should not have too much at a time. Children thrive best with small quantities of food frequently given. This neither overloads the stomach nor hurts the digestion, and is certainly most agreeable to nature.

Milk, water, butter-milk, or whey, are the most proper for children to drink. If they have any thing stronger, it may be fine small-beer, or a little wine mixed with water. The stomachs of children can digest well enough without the assistance of warm stimulants; besides, being naturally hot, they are easily hurt by every thing of a heating quality.

Few things are more hurtful to children than unripe fruits. They weaken the powers of digestion, and sour and relax the stomach, by which means it becomes a proper nest for insects. Children indeed

shew a great inclination for fruit; and I am apt to believe, that if good ripe fruit were allowed them, in proper quantity, it would have no bad effects. Fruits are generally of a cooling nature, and correct the heat and acrimony of the humours. This is what most children require; only care should be taken lest they exceed.

Butter ought to be sparingly given to children. It both relaxes the stomach, and produces gross humours. Indeed, most things that are fat or oily have this effect. Butter when salted becomes still more hurtful. Instead of butter, so liberally given to children in most parts of Britain, we would recommend honey. Children who eat honey are seldom troubled with worms: they are also less subject to cutaneous diseases, as itch, scabbed heads, &c.

Many people err in thinking that the diet of children ought to be altogether moist. When children live entirely upon slops, it relaxes their solids, renders them weak, and disposes them to the rickets, the scrophula, and other glandular disorders. Relaxation is one of the most general causes of the diseases of children. Every thing, therefore, which tends to unbrace their solids, ought to be carefully avoided.

We would not be understood by these observations as confining children to any particular kind of food. Their diet may be frequently varied, provided always that sufficient regard be had to simplicity.

Of the Exercise of Children.

Of all the causes which conspire to render the life of man short and painful, none has greater influence than the want of proper *exercise:* healthy parents, wholesome food, and proper clothing, will avail little, where exercise is neglected. Sufficient exercise will make up for several defects in nursing; but nothing can supply the want of it. It is absolutely necessary to the health, the growth, and the strength of children.

The desire of exercise is coeval with life itself. Were this principle attended to, many diseases might be prevented. But while indolence and sedentary employments prevent two-thirds of mankind from either taking sufficient exercise themselves or giving it to their children, what have we to expect but diseases and deformity among their offspring? The rickets, so destructive to children, never appeared in Britain till manufactures began to flourish, and people, attracted by the love of gain, left the country to follow sedentary employments in great towns. It is amongst these people, that this disease chiefly prevails, and not only deforms but kills many of their offspring.

The conduct of other young animals shews the propriety of giving exercise to children. Every other animal makes use of its organs of motion as soon as it can; and many of them, even when under no necessity of moving in quest of food, cannot be restrained without force. This is evidently the case with the calf, the lamb, and most other young animals. If these creatures were not permitted to frisk about and take exercise, they would soon die, or become diseased. The same inclination appears very early in the human species; but, as they are not able to take exercise themselves, it is the business of their parents and nurses to assist them.

Children may be exercised various ways. The best method, while they are light, is to carry them about in the nurse's arms.* This gives the nurse an opportunity of talking to the child, and of pointing out every thing that may please and delight its fancy. Besides, it is much safer than swinging an infant in a machine, or leaving it to the care of such as are not fit to take care of themselves. Nothing can be more absurd than to set one child to keep another: this conduct has proved fatal to many infants, and has rendered others miserable for life.

* The nurse ought to be careful to keep the child in a proper position; as deformity is often the consequence of inattention to this circumstance.

When children begin to walk, the safest and best method of leading them about is by the hands. The common way of swinging them in leading strings, fixed to their backs, has several bad consequences. It makes them throw their bodies forward, and press with their whole weight upon their stomach and breast: by this means the breathing is obstructed, the breast flattened, and the bowels compressed; which must hurt the digestion, and occasion consumptions of the lungs, and other diseases.

It is a common notion, that if children be set upon their feet too soon, their legs will become crooked. There is reason to believe that the very reverse of this is true. Every member acquires strength in proportion as it is exercised. The limbs of children are weak indeed, but their bodies are proportionably light; and had they skill to direct themselves, they would soon be able to support their own weight. Indeed, if a child be not permitted to make any use of its legs till a considerable time after the birth, and be then set upon them with its whole weight at once, there may be some danger; but this proceeds entirely from the child's not having been accustomed to use its legs from the beginning.

Mothers, of the poorer sort, think they are great gainers by making their children lie or sit while they themselves work: in this they are greatly mistaken. By neglecting to give their children exercise, they are obliged to keep them a long time before they can do any thing for themselves, and to spend more on medicine than would have paid for proper care.

Whoever considers the structure of the human body, will soon be convinced of the necessity of exercise for the health of children. The body is composed of an infinite number of tubes, whose fluids cannot be pushed on without the action and pressure of the muscles. But if the fluids remain inactive, obstructions must happen, and the humours must of course be vitiated, which cannot fail to occasion diseases. Nature has furnished both the vessels which carry the blood and lymph with numerous valves, in order that the

action of every muscle might push forward their contents; but, without action, this admirable contrivance can have no effect. This part of the animal economy proves to a demonstration the necessity of exercise, for the preservation of health.

Arguments, to shew the importance of exercise, might be drawn from every part of the animal economy: without exercise, the circulation of the blood cannot be properly carried on, nor the different secretions duly performed; without exercise, the fluids cannot be properly prepared, nor the solids rendered strong or firm. The action of the heart, the motion of the lungs, and all the vital functions are greatly assisted by exercise. But to point out the manner in which these effects are produced, would lead us farther into the economy of the human body, than most of those for whom this treatise is intended would be able to follow. We shall therefore only add, that, when exercise is neglected, none of the animal functions can be duly performed; and when this is the case, the whole constitution must go to wreck. A good constitution ought certainly to be our first object in the management of children. It lays a foundation for their being useful and happy in life; and whoever neglects it, not only fails in his duty to his offspring, but to society.

One very common error of parents, by which they hurt the constitutions of their children, is the sending them too young to school. This is often done solely to prevent trouble. When the child is at school, he needs no keeper. Thus the school-master is made the nurse; and the poor child is fixed to the seat seven or eight hours a day, which time ought to be spent chiefly in exercise. Sitting so long cannot fail to produce the worst effects upon the body; nor is the mind less injured. Early application weakens the faculties, and often fixes in the mind an aversion to books, which continues for life.

But suppose this were the way to make children scholars, it certainly ought not to be done at the expense of their constitutions. Our ancestors, who sel-

dom went to school very young, were not less learned than we. But we imagine the boy's education will be quite marred, unless he be carried to school in his nurse's arms. No wonder if such hot-bed plants seldom become either scholars or men!

Not only the confinement of children in public schools, but their number often proves hurtful. Children are much injured by being kept in crowds within doors; their breathing not only renders the place unwholesome, but if any one of them happen to be diseased, the rest catch the infection. A single child has been often known to communicate the bloody flux, the hooping cough, the itch, or other diseases, to almost every individual in a numerous school.

But, if fashion must prevail, and infants are to be sent to school, we would recommend it to teachers, as they value the interests of society, not to confine them too long at a time, but allow them to run about and play at such active diversions as may promote their growth, and strengthen their constitutions.

An effeminate education will infallibly spoil the best natural constitution; and if boys are brought up in a more delicate manner than even girls ought to be, they will never be men.

Nor is the common education of girls less hurtful to the constitution than that of boys. Miss is set down to her frame before she can put on her clothes, and is taught to believe that to excel at the needle is the only thing that can entitle her to general esteem. It is unnecessary here to insist upon the dangerous consequences of obliging girls to sit too much. They are pretty well known, and are too often felt at a certain time of life. But supposing this critical period to be got over, greater dangers still await them when they come to be mothers. Women, who have been early accustomed to a sedentary life, generally run great hazard in childbed; while those who have been used to constant exercise are seldom in any danger.

One hardly meets with a girl who can at the same time boast of early performances by the needle, and a good constitution. Close and early confinement ge-

nerally occasions indigestions, head-aches, pale complexions, pain of the stomach, loss of appetite, coughs, consumptions of the lungs, and deformity of the body. The last of these indeed is not to be wondered at, considering the awkward postures in which girls sit at many kinds of needle-work, and the delicate flexible state of their bodies in the early periods of life.

Would mothers, instead of having their daughters instructed in many trifling accomplishments, employ them in plain work and housewifery, and allow them sufficient exercise in the open air, they would both make them more healthy mothers, and more useful members of society.

Many people imagine it a great advantage for children to be early taught to earn their bread. This opinion is certainly right, provided they were so employed as not to hurt their health or growth; but when these suffer, society, instead of being benefited, is a real loser by their labour. There are few employments, except sedentary ones, by which children may earn a livelihood; and if they be set to these too soon, it ruins their constitutions. Thus, by gaining a few years from childhood, we generally lose twice as many in the latter period of life, and even render the person less useful while he does live.

In order to be satisfied of the truth of this observation, we need only look into the great manufacturing towns, where we shall find a puny degenerate race of people, weak and sickly all their lives, seldom exceeding the middle period of life; or if they do, being unfit for business, they become a burden to society. Thus arts and manufactures, though they may increase the riches of a country, are by no means favourable to the health of its inhabitants. Good policy would therefore require, that such people as labour during life should not be set too early to work.

There are, nevertheless, various ways of employing young people, without hurting their health. The easier parts of gardening, husbandry, or any business carried on without doors, are most proper. These are employments which most young people are fond of, and

some parts of them may always be adapted to their age, taste, and strength.

Some imagine that exercise within doors is sufficient; but they are greatly mistaken. One hour spent in running, or any other exercise without doors, is worth ten within. When children cannot go abroad, they may indeed be exercised at home. The best method of doing this is, to run about in a long room. This kind of exercise, if not carried to excess, is of excellent service to young people. It cheers the spirits, promotes perspiration, and strengthens the limbs.

The COLD BATH may be considered as an aid to exercise. By it the body is braced and strengthened, the circulation and secretions promoted; and, were it conducted with prudence, many diseases, as the rickets, scrophula, &c. might thereby be prevented. The ancients, who took every method to render children hardy and robust, were no strangers to the use of the cold bath; and, if we may credit report, the practice of immersing children daily in cold water must have been very common with our ancestors.

Every child, when in health, should at least have its extremities daily washed in cold water. This is a partial use of the cold bath, and is better than none. In winter this may suffice; but in the warm season, if a child be relaxed, or seem to have a tendency to the rickets or scrophula, its whole body ought to be frequently immersed in cold water. Care, however, must be taken, not to do this when the body is hot, or the stomach full. The child should be dipped *only once* at a time, should be taken out immediately, and have its skin well rubbed with a dry cloth.

The bad Effects of unwholesome Air upon Children.

WANT of wholesome air is destructive to many poor children who are born in great towns. There the poorer sort of inhabitants live in low, dirty, cou-

fined houses, to which the fresh air has hardly any access. Though grown people, who are hardy and robust, may be in such situations, yet they generally prove fatal to their offspring, few of whom arrive at maturity, and those who do are weak and deformed. As such people are not in a condition to carry their children abroad into the open air, we must lay our account with losing a great part of them. But the rich have not this excuse. It is their business to see that their children be daily carried abroad, and that they be kept in the open air for a sufficient time.

A very bad custom prevails of making children sleep in small apartments, or crowding two or three beds into one chamber. Instead of this, the nursery ought always to be the largest and best-aired room in the house. When children are confined in small apartments, the air not only becomes unwholesome, but the heat relaxes their solids, renders them delicate, and disposes them to colds and many other disorders. Nor is the custom of wrapping them up too close in cradles less pernicious. One would think that nurses were afraid lest children should suffer by breathing in the air, as many of them actually cover the child's face while asleep, and others wrap a covering over the whole of the cradle, by which means the child is forced to breathe the same air over and over all the time it sleeps. Cradles indeed are, on many accounts, hurtful to children, and it would be better if the use of them were totally laid aside.

A child is generally laid to sleep with all its clothes on; and, if a number of others be added, it must be over-heated; by which means it cannot fail to catch cold, on being taken out of the cradle, and exposed to the open air with only its usual clothing, which is too frequently the case.

Children, who are kept within doors all day, and sleep all night in warm close apartments, may with great propriety be compared to plants nursed in a hot-house, instead of the open air. Though such plants may by this means be kept alive for some time, they will never arrive at that degree of strength, vigour

and magnitude, which they would have acquired in the open air; nor would they be able to bear it afterwards, should they be exposed to it.

Children brought up in the country, who have been accustomed to open air, should not be too early sent to great towns, where it is confined and unwholesome. This is frequently done with a view to forward their education, but proves very hurtful to their health. All schools and seminaries of learning ought, if possible, to be so situated as to have fresh, dry, wholesome air, and should never be too much crowded.

Of Nurses.

A Nurse, who has not milk enough, is apt to imagine, that this defect may be supplied by giving the child wines, cordial waters, or other strong liquors. This is an egregious mistake. The only thing that has any chance to supply the place of the nurse's milk, must be some what nearly of the same quality, as cow's milk, ass's milk, or the like, with good bread. It never can be done by the help of strong liquors. These, instead of nourishing the infant, never fail to produce the contrary effect.

Children are often hurt by nurses suffering them to cry long and vehemently. This strains their tender bodies, and frequently occasions ruptures, inflammations of the throat, lungs, &c. An infant never continues to cry long without some cause, which might generally be discovered by proper attention: and the nurse who can hear an infant cry till it has almost spent itself, without endeavouring to please it, must be cruel indeed, and is unworthy to be trusted with the care of any human creature.

Nurses who deal much in medicine are always to be suspected. They trust to it, and neglect their duty. Such persons generally imagine, that a dose of medicine will make up for all the defects in food, air, exercise and cleanliness.

Allowing children to continue long wet, is another very pernicious custom of indolent nurses. This is not only disagreeable, but it galls and frets the infant, and, by relaxing the solids, occasions scrophulas, rickets, and other diseases. A dirty nurse is always to be suspected.

Nature often attempts to free the bodies of children from bad humours, by throwing them upon the skin: by this eruption, fevers and other diseases are prevented. Nurses are apt to mistake such critical eruptions for an itch, or some other infectious disorder. Accordingly, they take every method to drive them in. In this way many children lose their lives; and no wonder, as Nature is opposed in the very method she takes to relieve them. It ought to be a rule, which every nurse should observe, never to stop any eruption without proper advice, or being well assured that it is not of a critical nature. At any rate, it is never to be done without previous evacuations.

Loose stools is another method by which Nature often prevents or carries off the diseases of infants. If these proceed too far, they ought to be checked; but this is never to be done without great caution. Nurses, upon the first appearance of loose stools, frequently fly to the use of astringents, or such things as bind the body. Hence inflammatory fevers, and other fatal diseases are occasioned. A dose of rhubarb, a gentle vomit, or some other evacuation, should always precede the use of astringent medicines.

One of the greatest faults of nurses is, concealing the diseases of children from their parents. This they are extremely ready to do, especially when the disease is the effect of their own negligence. Many instances might be given of persons who have been rendered lame for life by a fall from the nurse's arms; which she, through fear, concealed till the complaint was past cure. Every parent who intrusts a nurse with the care of a child, ought to give her the strictest charge not to conceal the most trifling disorder or misfortune that may befall it.

On the proper management of children depend

not only their health and usefulness in life, but likewise the safety and prosperity of the state to which they belong. Effeminacy ever will prove the ruin of any state where it prevails; and when its foundations are laid in infancy, it can never afterwards be wholly eradicated. Parents who love their offspring, and wish well to their country, ought, therefore, in the management of their children, to avoid every thing that may have a tendency to make them weak or effeminate, and to take every method in their power to render their constitutions strong and hardy.

Of the Laborious, the Sedentary, and the Studious.

That men are exposed to particular diseases from the occupations which they follow, is a fact well known; but to remedy this evil is a matter of some difficulty. Most people are under the necessity of following those employments to which they have been bred, whether they be favourable to health or not. For this reason, we shall endeavour to point out the circumstances in each of them from which the danger chiefly arises, and to propose the most rational methods of preventing it.

Chymists, founders, forgers, glass-makers, and several other artists, are hurt by the unwholesome air which they are obliged to breathe. Hence proceed asthmas, coughs, and consumptions of the lungs, so incident to persons who follow these employments. To prevent such consequences as far as possible, the places where these occupations are carried on ought to be constructed in such a manner as to discharge the smoke and other exhalations, and admit a free current of fresh air. Such artists ought never to continue long at work; and when they give over, they should suffer themselves to cool gradually, and put on their clothes before they go into the open air. They ought never to drink large quantities of cold, weak, or watery liquors, while their bodies are hot, nor to indulge in

raw fruits, salads, or any thing that is cold on the stomach.

Miners, and all who work under ground, are likewise hurt by unwholesome air. The air, by its stagnation in deep mines, is often loaded with such noxious exhalations as to become a most deadly poison. Miners ought never to go to work fasting, nor to continue too long at work. Their food ought to be nourishing, and their liquor generous: nothing more certainly hurts them than living too low. They should by all means avoid costiveness. This may either be done by chewing a little rhubarb, or taking a sufficient quantity of salad-oil. Oil not only opens the body, but sheaths and defends the intestines from the ill effects of the metals. All who work at mines or metals ought to wash carefully, and change their clothes as soon as they give over working. Nothing would tend more to preserve the health of such people, than a strict and almost religious regard to cleanliness.

Plumbers, painters, gilders, smelters, makers of white lead, and many others who work in metals, are liable to the same diseases as miners, and ought to observe the same directions for avoiding them.

Tallow-chandlers, boilers of oil, and all who work in putrid animal substances, are likewise liable to suffer from the unwholesome smells or effluvia of these bodies. They ought to pay the same regard to cleanliness as miners; and when they are affected with nausea, sickness, or indigestion, we would advise them to take a vomit, or a gentle purge. Such substances ought always to be manufactured as soon as possible. When long kept, they not only become unwholesome to those who manufacture them, but likewise to people who live in the neighbourhood.

Though those who follow laborious employments are in general the most healthy of mankind, yet the nature of their occupations, and the places where they are carried on, expose them more particularly to some diseases. Husbandmen, for instance, are subject to all the vicissitudes of the weather, which, in this country, are often very great and sudden, and occasion

colds, coughs, quinsies, rheumatisms, fevers, and other acute disorders. They are likewise forced to work hard, and often to carry burdens above their strength, which, by overstraining the vessels, occasion asthmas, ruptures, pleurisies, &c.

Those who labour without doors are often afflicted with intermitting fevers, occasioned by the frequent vicissitudes of heat and cold, poor living, bad water, sitting or lying on the damp ground, evening dews, night air, &c. to which they are frequently exposed or inclined.

Such as bear heavy burdens, as porters, labourers, &c. are obliged to draw in the air with much greater force, and also to keep their lungs distended with more violence than is necessary for common respiration. Carrying heavy burdens is generally the effect of mere laziness, which prompts people to do at once what should be done at twice. Sometimes it proceeds from vanity or emulation. Hence it is, that the strongest men are most commonly hurt by heavy burdens, hard labour, or feats of activity. It is rare to find one who boasts of his strength without a rupture, a spitting of blood, or some other disease, which he reaps as the fruit of his folly. One would imagine, the daily instances we have of the fatal effects of carrying great weights, running, wrestling, and the like, would be sufficient to prevent such practices.

There are indeed some employments which necessarily require a great exertion of strength; as porters, blacksmiths, carpenters, &c. None ought to follow these but men of strong body; and they should never exert their strength to the utmost, nor work too long. When the muscles are violently strained, frequent rest is necessary, in order that they may recover their tone: without this, the strength and constitution will be soon worn out, and premature old age be induced.

The erysipelas, or St. Anthony's fire, is a disease very incident to the laborious. It is occasioned by whatever gives a sudden check to the perspiration, as drinking cold water when the body is warm, wet feet, keeping on wet clothes, sitting or lying on the damp

ground, &c. It is impossible for those who labour without doors always to guard against these inconveniences; but it is known from experience that their ill consequences might often be prevented by proper care.

The iliac passion, the colic, and other complaints of the bowels, are often occasioned by the same causes as the erysipelas; but they may likewise proceed from flatulent and indigestible food. Labourers generally eat unfermented bread, made of peas, beans, rye, and other windy ingredients. They also devour great quantities of unripe fruits, baked, stewed, or raw, with various kinds of roots and herbs, upon which they drink sour milk, stale small beer, or the like. Such a mixture cannot fail to fill the bowels with wind, and occasion diseases in those parts.

Inflammations, whitloes, and other diseases of the extremities, are likewise common with those who labour without doors. These diseases are often attributed to venom, or some kind of poison; but they generally proceed either from sudden heat after cold, or the contrary. When labourers, milk-maids, &c. come from the field, cold or wet, they run to the fire, and often plunge their hands in warm water: by which means the blood and other humours in those parts are suddenly expanded, and, the vessels not yielding so quickly, a strangulation happens, and an inflammation or a mortification ensues.

When such persons come home cold, they ought to keep at a distance from the fire for some time, to wash their hands in cold water, and to rub them well with a dry cloth. It sometimes happens, that people are so benumbed with cold as to be quite deprived of the use of their limbs. In this case the best remedy is to rub the parts affected with snow, or, where it cannot be had, with cold water. If they be held near the fire, or plunged into warm water, a mortification is likely to ensue.

Labourers, in the hot season, are apt to lie down and sleep in the sun. This practice is so dangerous, that they often wake in a burning fever. These ardent

fevers, which prove so fatal about the end of summer, and beginning of autumn, are frequently occasioned by this imprudent conduct. When labourers leave off work, which they ought always to do during the heat of the day, they should go home, or at least get under some cover, where they may repose themselves in safety.

Many people follow their employments in the fields from morning to night without eating any thing. This cannot fail to hurt their health. However homely their fare be, they ought to have it at regular times; and the harder they work, the more frequently they should eat. If the humours be not often replenished with fresh nourishment, they frequently become putrid, and produce fevers of the very worst kind.

Fevers of a very bad kind are often occasioned among labourers by poor living. When the body is not sufficiently nourished, the humours become vitiated, and the solids weak; from whence the most fatal consequences ensue. Poor living is likewise productive of many of those cutaneous diseases so frequent among the lower class of people. It is remarkable that cattle, when pinched in their food, are generally affected with diseases of the skin, which seldom fail to disappear when they are put upon a good pasture. This shews how much a good state of the humours depends upon a sufficient quantity of proper nourishment.

Poverty not only occasions, but aggravates, many of the diseases of the laborious. Few of them have much foresight to save any thing. They are glad to make a shift to live from day to day; and when any disease overtakes them, they are miserable indeed. Here the godlike virtue of charity ought always to exert itself. To relieve the industrious poor in distress, is surely the most exalted act of humanity. They alone, who are witnesses of these scenes of calamity, can form a notion of what numbers perish in diseases, for want of proper assistance, and even for want of the necessaries of life.

Labourers are often hurt by a foolish emulation, which prompts them to vie with one another, till they

overheat themselves to such a degree as to occasion a fever, or even to drop down dead. Such as wantonly throw away their lives in this manner, deserve to be looked upon in no better light than self-murderers.

The office of a soldier, in time of war, may be ranked among the laborious employments. Soldiers suffer many hardships from the inclemency of seasons, long marches, bad provisions, hunger, watching, unwholesome climates, bad water, &c. These occasion fevers, fluxes, rheumatisms, and other fatal diseases, which generally do greater execution than the sword, especially when campaigns are continued too late in the season. A few weeks of cold rainy weather will often prove more fatal than an engagement.

Those who have the command of armies should take care that their soldiers be well clothed and well fed. They ought also to finish their campaigns in due season, and to provide their men with dry and well-aired winter quarters. These rules, taking care at the same time to keep the sick people at a proper distance from those in health, would tend greatly to preserve the lives of the soldiery.*

Sailors may also be numbered among the laborious. They undergo great hardships from change of climate, the violence of the weather, hard labour, salt provi-

* Indeed it is to be regretted, that soldiers suffer not less from indolence and intemperance in time of peace, than from hardships in time of war. If men are idle, they will be vicious. It would, therefore, be of great importance, could a scheme be formed for rendering the military, in times of peace, both more healthy and more useful. These desirable objects might, in our opinion, be obtained, by employing them for some hours every day, and advancing their pay accordingly. By this means, idleness, the mother of vice, might be prevented; the price of labour lowered; public works, as harbours, canals, turnpike roads, &c. might be made without hurting manufactures; and soldiers might be enabled to marry, and bring up children. A scheme of this kind might easily be conducted, so as not to depress the martial spirit; provided the men were only to work four or five hours every day, and always to work without doors: no soldier should be suffered to work too long, or to follow any sedentary employment. Sedentary employments render men weak and effeminate, quite unfit for the hardships of war: whereas working for a few hours every day without doors, would enure them to the weather, brace their nerves, and increase their strength and courage.

sions, &c. Sailors are of so great importance both to the trade and safety of this kingdom, that too much pains can never be bestowed in pointing out the means of preserving their lives.

One great source of the diseases of sea-faring people is excess. When they get on shore, after having been long at sea, without regard to the climate or their own constitutions, they plunge headlong into all manner of riot, and often persist till a fever puts an end to their life. Thus intemperance, and not the climate, is often the cause why many of our brave sailors die on foreign coasts. Such people ought not to live too low; but they will find moderation the best defence against fevers and many other maladies.

Sailors, when on duty, cannot avoid sometimes getting wet. When this happens, they should change their clothes as soon as they are relieved, and take every method to restore the perspiration. They should not in this case make free with spirits or other strong liquors, but should rather drink a little warm gruel, and immediately go to bed; where a sound sleep and a gentle sweat would set all right.

But sailors suffer most in their health from unwholesome food. The constant use of salted provisions vitiates the humours, and occasions a scurvy, and other obstinate maladies. It is no easy matter to prevent this disease in long voyages; yet we cannot help thinking, that much might be done towards effecting so desirable an end, were due pains bestowed for that purpose. For example, various roots, greens, and fruits, might be kept a long time at sea; as onions, potatoes, cabbages, lemons, oranges, tamarinds, apples, &c. When fruits cannot be kept, the juices of them, either fresh or fermented, may. With these, all the drink, and even the food, of a ship's company ought to be acidulated in long voyages.

Stale bread and beer likewise contribute to vitiate the humours. Flour will keep for a long time on board, of which fresh bread might frequently be made. Malt too might be kept, and infused with boiling water at any time. This liquor, when drank even in form

of wort, is very wholesome, and is found to be an antidote against the scurvy. Small wines and elder might likewise be plentifully laid in; and, should they turn sour, they would still be useful as vinegar. Vinegar itself is a great antidote against diseases, and should be used by all travellers, especially at sea. It may either be mixed with the water they drink, or taken in their food.

Such animals as can be kept alive, ought likewise to be carried on board, as hens, ducks, pigs, &c. Fresh broths, made of portable soup, and puddings, made of peas or other vegetables, ought to be used plentifully. Many other things will readily occur to people conversant in these matters, which would tend to preserve the health of that brave and useful set of men.

We have reason to believe, if due attention were paid to the diet, air, clothing, and above all things to the cleanliness of sea-faring people, they would be the most healthy set of men in the world; but, when these are neglected, the very reverse will happen.

The best *medical antidote* that we can recommend to sailors or soldiers on foreign coasts, especially where dampness prevails, if a dose of rhubarb in powder be previously taken, is the Peruvian bark. This will often prevent fevers, and other fatal diseases. About a drachm of it may be chewed every day; or, if this should prove disagreeable, an ounce of bark, with half an ounce of orange-peel, and two drachms of snake-root coarsely powdered, may be infused for two or three days in an English quart of brandy; and half a wine-glass of it taken twice or thrice a day, when the stomach is empty. This has been found to be an excellent antidote against fluxes, putrid, intermitting, and other fevers, in unhealthy climates. It is not material in what form this medicine is taken. It may either be infused in water, wine, or spirits, as recommended above, or made into an electuary with syrup of lemons, oranges, or the like.

The Sedentary.

Though nothing can be more contrary to the nature of man than a sedentary life, yet this class comprehends by far the greater part of the species. Almost the whole female world, and, in manufacturing countries, the major part of the males, may be reckoned sedentary.

Agriculture, the first and most healthful of all employments, is now followed by few who are able to carry on any other business. But those who imagine that the culture of the earth is not sufficient to employ all its inhabitants, are greatly mistaken. An ancient Roman, we are told, could maintain his family from the produce of one acre of ground. So might a modern Briton, if he would be contented to live like a Roman. This shows what an immense increase of inhabitants Britain might admit of, and all of them live by the culture of the ground.

Agriculture is the great source of domestic riches. Where it is neglected, whatever wealth may be imported from abroad, poverty and misery will abound at home. Such is, and ever will be, the fluctuating state of trade and manufactures, that thousands of people may be in full employment to-day, and in beggary to-morrow, This can never happen to those who cultivate the ground. They can eat the fruit of their labour, and can always, by industry, obtain at least the necessaries of life.

Though sedentary employments are necessary, yet there seems to be no reason why any person should be confined for life to those alone. Were such employments intermixed with the more active and laborious, they would never do hurt. It is constant confinement that ruins the health. A man will not be hurt by sitting five or six hours a day; but if he is obliged to sit ten or twelve, he will soon be diseased.

But it is not the want of exercise alone which hurts sedentary people; they likewise suffer from the confined air which they breathe. It is very common to see ten or a dozen taylors, or stay-makers, for example,

crowded into one small apartment, where there is hardly room for one person to breathe freely. In this situation they generally continue for many hours at a time, often with the addition of sundry candles, which tend to waste the air, and render it less fit for respiration. Air that is breathed repeatedly becomes unfit for expanding the lungs. This is one cause of the phthisical coughs, and other complaints of the breast, so incident to sedentary artificers.

Even the perspiration from a great number of persons pent up together, renders the air unwholesome. The danger from this quarter will be greatly increased, if any one of them happens to have bad lungs, or to be otherwise diseased. Those who sit near him, being forced to breathe the same air, can hardly fail to be infected. It would be a rare thing, however, to find a dozen of sendentary people all in good health. The danger of crowding them together must, therefore, be evident to every one.

Many of those who follow sedentary employments are constantly in a bending posture; as shoe-makers, tailors, cutlers, &c. Such a posture is extremely hurtful: it obstructs all the vital motions, and of course must destroy the health. Accordingly we find such artificers generally complaining of indigestions, flatulencies, head-aches, pains of the breast, &c.

The food of sedentary people, instead of being pushed forward by an erect posture and the action of the muscles, is in a manuner confined in the bowels. Hence indigestion, costiveness, wind, and other hypochondriacal affections, the constant companion of the sedentary. Indeed, none of the excretions can be duly performed where exercise is wanting; and, when the matter, which ought to be discharged in this way, is retained too long in the body, it must have bad effects, as it is again taken up into the mass of humours.

A bending posture is likewise hurtful to the lungs. When this organ is compressed, the air cannot have free access into all its parts, so as to expand them properly. Hence tubercles, adhesions, &c. are formed, which often end in consumptions. Besides, the proper

action of the lungs being absolutely necessary for making good blood, when that organ fails, the humours soon become universally depraved, and the whole constitution goes to wreck.

A bad figure of body is a very common consequence of close application to sedentary employments. The spine, for example, by being continually bent, puts on a crooked shape, and generally remains so ever after. But a bad figure of body has already been observed to be hurtful to health, as the vital functions are thereby impeded.

A sedentary life seldom fails to occasion an universal relaxation of the solids. This is the great source from whence most of the diseases of sedentary people flow. The scrophula, consumption, hysterics, and nervous diseases, now so common, were very little known in this country before sedentary employments became so numerous; and they are still very little known among such of our people as follow active employments without doors, though in great towns at least two-thirds of the inhabitants are afflicted with them.

It is very difficult to remedy these evils; because many who have been accustomed to a sedentary life, like ricketty children, lose all inclination for exercise: we shall, however, throw out a few hints with respect to the most likely means for preserving the health of this useful set of people, which some of them, we hope, will be wise enough to take.

It has been already observed, that sedentary artificers are often hurt by their bending posture. They ought, therefore, to stand or sit as erect as the nature of their employments will permit. They should likewise change their posture frequently, and should never sit too long at a time, but leave off work, and walk, ride, run, or do any thing that will promote the vital functions.

Sedentary artificers are generally allowed but little time for exercise; yet, short as it is, they seldom employ it properly. A journeyman-tailor, or weaver, for example, instead of walking abroad for exercise and fresh air, at his hours of leisure, chooses often to spend

them in a public-house, or in playing at some sedentary game, by which he generally loses both his time and his money.

The awkward postures in which many sedentary artificers work, seem rather to be the effect of custom than necessity. For example, a table might surely be contrived for ten or a dozen tailors to sit round, with liberty for their legs either to hang down, or rest upon a foot-board, as they should choose. A place might likewise be cut out for each person in such a manner that he might sit as conveniently for working as in the present mode of sitting cross-legged.

All sedentary artificers ought to pay the strictest regard to cleanliness. Both their situation and occupations render this highly necessary. Nothing would contribute more to preserve their health, than a proper attention to it; and such of them as neglect it, not only run the hazard of losing their health, but of becoming a nuisance to their neighbours.

Instead of multiplying rules for preserving the health of the sedentary, we shall recommend to them the following general plan, viz. That every person who follows a sedentary employment should cultivate a piece of ground with his own hands. This he might dig, plant, sow, and weed, at leisure hours, so as to make it both an exercise and amusement, while it produced many of the necessaries of life. After working an hour in a garden, a man will return with more keenness to his employment within doors, than if he had been all the while idle.

Labouring the ground is every way conducive to health. It not only gives exercise to every part of the body, but the very smell of the earth and fresh herbs revives and cheers the spirits, whilst the perpetual prospect of something coming to maturity, delights and entertains the mind. We are so formed as to be always pleased with somewhat in prospect, however distant or however trivial; hence the pleasure that most men feel in planting, sowing, building, &c. These seem to have been the chief employment of the more early ages: and when kings and conquerors cultivated

the ground, there is reason to believe that they knew as well wherein true happiness consisted as we do.

It may seem romantic to recommend gardening to manufacturers in great towns; but observation proves that the plan is very practicable. In the towns of Sheffield and Birmingham, where the great iron and brass manufactures are carried on, there is hardly a journeyman, who does not possess a piece of ground, which he cultivates as a garden. This practice has many salutary effects. It not only induces these people to take exercise without doors, but also to eat many greens, roots, &c. of their own growth, which they would never think of purchasing. There can be no reason why manufacturers in any other town in Great Britain should not follow the same plan. It is, indeed, to be regretted, that in such a place as London a plan of this kind is not practicable; yet, even there, sedentary artificers may find opportunities of taking air and exercise, if they choose to embrace them.

Mechanics are too much inclined to crowd into great towns. The situation may have some advantages, but it has likewise many disadvantages. All mechanics who live in the country have it in their power to cultivate a piece of ground; which indeed most of them do. This not only gives them exercise, but enables them to live more comfortably. So far at least as my observation extends, mechanics who live in the country are far more happy than those in great towns. They enjoy better health, live in greater affluence, and seldom fail to rear a healthy and numerous offspring.

In a word, exercise without doors, in one shape or another, is absolutely necessary to health. Those who neglect it, though they may for a while drag out life, can hardly be said to enjoy it. Weak and effeminate, they languish for a few years, and soon drop into an untimely grave.

The Studious.

Intense thinking is so destructive to health, that few instances can be produced of studious persons who are strong and healthy. Hard study always implies a sedentary life; and when intense thinking is joined to the want of exercise, the consequences must be bad. We have frequently known even a few months of close application to study ruin an excellent constitution, by inducing a train of nervous complaints which could never be removed. Man is evidently not formed for continual thought more than for perpetual action, and would be as soon worn out by the one as the other.

So great is the power of the mind over the body, that, by its influence, the whole vital motions may be accelerated or retarded to almost any degree. Thus, cheerfulness quickens the circulation, and promotes all the secretions; whereas sadness and profound thought never fail to retard them. Hence it would appear, that even a degree of comparative thoughtlessness is necessary to health. Indeed the perpetual thinker seldom enjoys either health or spirits; while the person who can hardly be said to think at all, generally enjoys both.

Perpetual thinkers, as they are called, seldom think long. In a few years they generally become quite stupid, and exhibit a melancholy proof how readily the greatest blessings may be abused. Thinking, like every thing else, when carried to an extreme, becomes a vice; nor can any thing afford a greater proof of wisdom, than for a man frequently and seasonably to unbend his mind. This may generally be done by mixing in cheerful company, or by varying the exercises of the body in useful employments.

Instead of attempting to investigate the nature of that connection which subsists between the mind and body, or to inquire into the manner in which they mutually affect each other, we shall only mention those diseases to which the learned are more peculiarly liable, and endeavour to point out the means of avoiding them.

Studious persons are very subject to the gout. This painful disease in a great measure proceeds from indigestion and an obstructed perspiration. It is impossible that the man who sits from morning till night should either digest his food, or have any of the secretions in due quantity. But when that matter which should be thrown off by the skin is retained in the body, and the humours are not duly prepared, diseases must ensue.

The studious are likewise very liable to the stone and gravel. Exercise greatly promotes both the secretion and discharge of urine; consequently a sedentary life must have the contrary effect. Any one must be satisfied of this by observing, that he passes much more urine by day than in the night, and also when he walks or rides than when he sits.

The circulation in the liver being slow, obstructions in that organ can hardly fail to be the consequence of inactivity. Hence sedentary people are frequently affected with schirrous livers. But the proper secretion and discharge of the bile is so necessary a part of the animal economy, that where these are not duly performed, the health must soon be impaired. Jaundice, indigestion, loss of appetite, and a wasting of the whole body, seldom fail to be the consequences of a vitiated state of the liver or obstructions of the bile.

Few diseases prove more fatal to the studious than consumptions of the lungs. It has already been observed, that this organ cannot be duly expanded in those who do not take proper exercise; and where that is the case, obstructions and adhesions will ensue. Not only want of exercise, but the posture in which studious persons generally sit, is very hurtful to the lungs. Those who read or write much are ready to contract a habit of bending forwards, and often press with their breast upon a table or bench. This posture cannot fail to be injurious.

No person can enjoy health who does not properly digest his food. But intense thinking and inactivity never fail to weaken the powers of digestion. Hence the humours become crude and vitiated, the solids

weak and relaxed, and the whole constitution goes to ruin.

Long and intense thinking often occasions grievous head-aches, which bring on vertigoes, apoplexies, palsies, and other fatal disorders. The best way to prevent these is, never to study too long at one time, and to keep the body regular, either by proper food, or taking frequently a little of some opening medicine.

Those who read or write much are often afflicted with sore eyes. Studying by candle-light is peculiarly hurtful to the sight. This ought to be practised as seldom as possible. When it is unavoidable, the eyes should be shaded, and the head should not be held too low. When the eyes are weak or painful, they should be washed very frequently with cold water, to which a little brandy may be added.

It has already been observed, that the excretions are very defective in the studious. The dropsy is often occasioned by the retension of those humours which ought to be carried off in this way. Any person may observe, that sitting makes his legs swell, and that this goes off by exercise; and clearly points out the method of prevention.

Fevers, especially of the nervous kind, are often the effect of study. Nothing affects the nerves so much as intense thought. It in a manner unhinges the whole human frame, and not only hurts the vital motions, but disorders the mind itself. Hence a delirium, melancholy, and even madness, are often the effects of close application to study. In fine, there is no disease which can proceed either from a bad state of the humours, a defect of the usual secretions, or a debility of the nervous system, which may not be induced by very intense thinking.

But the most affecting of these diseases which attack the studious, is, the hypochondriac. This disease seldom fails to be the companion of deep thought. It may rather be called a complication of maladies than a single one. To what a wretched condition are the best of men often reduced by it! Their strength and appetite fail; a perpetual gloom hangs over their

minds; they live in the constant dread of death, and are continually in search of relief from medicine; where, alas! it is not to be found. Those who labour under this disorder, though they are often made the subject of ridicule, justly claim our highest sympathy and compassion.

As studious people are necessarily much within doors, they should make choice of a large and well-aired place for study. This would not only prevent the bad effects which attend confined air, but would cheer the spirits, and have a most happy influence both on the body and mind. It is said of Euripides, the tragedian, that he used to retire to a dark cave to compose his tragedies; and of Demosthenes, the Grecian orator, that he chose a place for study where nothing could be either heard or seen. With all deference to such venerable names, we cannot help condemning their taste. A man may surely think to as good purpose in an elegant apartment as in a cave; and may have as many conceptions where the all-cheering rays of the sun render the air wholesome, as in places where they never enter.

Those who read and write much should be very attentive to their posture. They ought to sit and stand by turns, always keeping as nearly in an erect posture as possible. Those who dictate may do it walking. It has an excellent effect, frequently to read or speak aloud. This not only exercises the lungs, but almost the whole body. Hence studious people are generally benefited by delivering discourses in public. Public speakers, indeed, sometimes hurt themselves by over-acting their part; but this is their own fault. The martyr to mere vociferation merits not our sympathy.

The morning has, by all medical writers been reckoned the best time for study. It is so. But it is also the most proper season for exercise, while the stomach is empty, and the spirits refreshed with sleep. Studious people should therefore sometimes spend the morning in walking, riding, or some manly exercises without doors. This would make them return to study with greater alacrity, and would be of more service

than twice the time, after their spirits are worn out with fatigue. Every studious person should make it a part of his business, and should let nothing interrupt his hours of employment, more than those of study.

Music has a very happy effect in relieving the mind when fatigued with study. It would be well if every studious person were so far acquainted with that science, as to amuse himself after severe thought by playing such airs as have a tendency to raise the spirits, and inspire cheerfulness and good humour.

It is a reproach to learning, that any of her votaries, to relieve the mind after study, should betake themselves to the use of strong liquors. This indeed is a remedy; but it is a desperate one, and always proves destructive. Would such persons, when their spirits are low, get on horseback, and ride ten or a dozen miles, they would find it a more effectual remedy than any cordial medicine in the apothecary's shop, or all the strong liquors in the world.

It is much to be regretted, that learned men, while in health, pay so little regard to these things! There is not any thing more common than to see a miserable object overrun with nervous diseases, bathing, walking, riding, and, in a word, doing every thing for health after it is gone; yet if any one had recommended these things to him by way of prevention, the advice would, in all probability, have been treated with contempt, or at least with neglect. Such is the weakness of mankind, and such the want of foresight, even in those who ought to be wiser than others!

With regard to the diet of the studious, we see no reason why they should abstain from any kind of food that is wholesome, provided they use it in moderation. They ought, however, to be sparing in the use of every thing that is sour, windy, rancid, or hard of digestion. Their suppers should always be light, or taken soon in the evening. Their drink may be water, fine malt-liquor, not too strong, good cider, wine and water; or, if troubled with acidities, water mixed with a very little brandy, or any other genuine spirit.

We shall only observe, with regard to those kinds of exercise which are most proper for the studious, that they should not to be too violent, nor ever carried to the degree of excessive fatigue. They ought likewise to be frequently varied, so as to give action to all the different parts of the body; and should, as often as possible, be taken in the open air. In general, riding on horseback, walking, or working in a garden, are the best.

We would likewise recommend the use of the cold bath to the studious. It will, in some measure, supply the place of exercise, and should not be neglected by persons of a relaxed habit, especially in the warm season.

No person ought either to take violent exercise, or to study, immediately after a full meal.

Of Aliment.

Unwholesome food, and irregularities of diet, occasion many diseases. There is no doubt but the whole constitution of body may be changed by diet alone. The fluids may be thereby attenuated or condensed, rendered mild or acrimonious, coagulated or diluted, to almost any degree. Nor are its effects upon the solids less considerable. They may be braced or relaxed, have their sensibility, motions, &c. greatly increased or diminished, by different kinds of aliment. A very small attention to these things will be sufficient to shew, how much the preservation of health depends upon a proper regimen of the diet.

Nor is an attention to diet necessary for the preservation of health only; it is likewise of importance in the cure of diseases. Every intention in the cure of many diseases may be answered by diet alone. Its effects, indeed, are not always so quick as those of medicine, but they are generally more lasting; besides it is neither so disagreeable to the patient, nor so

dangerous, as medicine, and is always more easily obtained.

Our intention here is not to inquire minutely into the nature and properties of the various kinds of aliment in use among mankind, nor to shew their effects upon the different constitutions of the human body; but to mark some of the most pernicious errors which people are apt to fall into, with respect both to the quantity and quality of their food, and to point out their influence upon health.

It is not indeed an easy matter to ascertain the exact quantity of food proper for every age, sex, and constitution; but a scrupulous nicety here is by no means necessary. The best rule is, to avoid all extremes. Mankind were never intended to weigh and measure their food. Nature teaches every creature when it has enough; and the calls of thirst and hunger are sufficient to inform them when more is necessary.

Though moderation is the chief rule with regard to the quantity, yet the quality of food merits a farther consideration. There are many ways by which provisions may be rendered unwholesome. Bad seasons may either prevent the ripening of grain, or damage it afterwards. These, indeed, are acts of Providence, and we must submit to them; but surely no punishment can be too severe for those who suffer provisions to spoil by hoarding them, on purpose to raise the price, or who promote their own interests by adulterating the necessaries of life.*

Animal, as well as vegetable, food may be rendered unwholesome by being kept too long. All animal substances have a constant tendency to putrefaction; and, when that has proceeded too far, they not only become offensive to the senses, but hurtful to health. Diseased

* The poor, indeed, are generally the first who suffer by unsound provision; but the lives of the labouring poor are of great importance to the state: besides, diseases occasioned by unwholesome food often prove infectious, by which means they reach people in every station. It is therefore the interest of all, to take care that no spoiled provisions of any kind be exposed to sale.

animals, and such as die of themselves, ought never to be eaten. It is a common practice, however, in some grazing countries, for servants and poor people to eat such animals as die of any disease, or are killed by accident. Poverty, indeed, may oblige people to do this; but they had better eat a smaller quantity of what is sound and wholesome: it would both afford a better nourishment, and be attended with less danger.

The injunctions given to the Jews, not to eat any creature which died of itself, seem to have a strict regard to health; and ought to be observed by Christians as well as Jews. Animals never die of themselves without some previous disease; but how a diseased animal should be wholesome food is inconceivable; even those which die by accident must be hurtful, as their blood is mixed with the flesh, and soon turns putrid.

Animals which feed grossly, as tame ducks, hogs, &c. are neither so easily digested, nor afford such wholesome nourishment as others. No animal can be wholesome which does not take sufficient exercise. Most of our stalled cattle are crammed with gross food, but not allowed exercise nor free air; by which means they indeed grow fat, but their juices, not being properly prepared or assimilated, remain crude, and occasion indigestions, gross humours, and oppressions of the spirits, in those who feed upon them.

Animals are often rendered unwholesome by being overheated. Excessive heat causes a fever, exalts the animal salts, and mixes the blood so intimately with the flesh, that it cannot be separated. For this reason, butchers should be severely punished who overdrive their cattle.

But this is not the only way by which butchers render meat unwholesome. The abominable custom of filling the cellular membrane of animals with air, in order to make them appear fat, is every day practised. This not only spoils the meat, and renders it unfit for keeping, but is such a dirty trick, that the very idea of it is sufficient to disgust a person of any delicacy at

every thing which comes from the shambles. Who can bear the thought of eating meat which has been blown up with air from the lungs of a dirty fellow, perhaps labouring under the very worst of diseases?

No people in the world eat such quantities of salt meat as the English, which is one reason why they are so generally tainted with the scurvy, and its numerous train of consequences, indigestion, low spirits, hypochondriacism, &c. Animal food, with a proper mixture of vegetables, will be found the most wholesome; but to gorge beef, mutton, pork, fish, and fowl, twice or thrice a day, is certainly too much. All who value health ought to be contented with making one meal of flesh in the twenty-four hours, and this ought to consist of one kind only.

The most obstinate scurvy has often been cured by a vegetable diet; nay, milk alone will frequently do more in that disease than any medicine. Hence it is evident, that if vegetables and milk were more used in diet, we should have less scurvy, and likewise fewer putrid and inflammatory fevers. Fresh vegetables, indeed, come to be daily more used in diet: this laudable practice we hope will continue to gain ground.

Our aliment ought neither to be too moist nor too dry. Moist aliment relaxes the solids, and renders the body feeble. Thus we see females, who live much on tea and other watery diet, generally become weak, and unable to digest solid food: hence proceed hysterics, and all their dreadful consequences. On the other hand, food that is too dry renders the solids in a manner rigid, and the humours viscid, which disposes the body to inflammatory fevers, scurvies, and the like.

Much has been said on the ill effects of tea in diet. They are, no doubt, numerous; but they proceed rather from the imprudent use of it, than from any bad qualities in the tea itself. Tea is now almost the universal breakfast in this part of the world; but the morning is surely the most improper time of the day for drinking it. Most delicate persons, who, by the bye, are the greatest tea-drinkers, cannot eat any thing in the morning. If such persons, after fasting ten or

twelve hours, drink four or five cups of tea without eating a proper proportion of bread, it must hurt them. Good tea, taken in a moderate quantity, not too strong, nor too hot, nor drank upon an empty stomach, will seldom do harm; but if it be bad, which is often the case, or substituted in the room of solid food, it must have many ill effects.

The arts of cookery render many things unwholesome, which are not so in their own nature. By jumbling together a number of different ingredients, in order to make a high-seasoned sauce or rich soup, the composition proves almost a poison. All high seasoning, pickles, &c. are only incentives to luxury, and never fail to hurt the stomach. It were well for mankind, if cookery, as an art, were entirely prohibited. Plain roasting or boiling is all that the stomach requires. These alone are sufficient for people in health, and the sick have still less need of a cook.

The liquid part of our aliment likewise claims our attention. Water is not only the basis of most liquors, but also composes a great part of our solid food. Good water must therefore be of the greatest importance in diet. The best water is that which is most free from any mixture of foreign bodies. The inhabitants of some hilly countries have peculiar diseases, which in all probability proceed from the water. Thus the people who live near the Alps in Switzerland, and the inhabitants of the Peak in Derbyshire in England, have large tumors or wens on their necks. This disease is generally imputed to the snow-water; but there is more reason to believe it is owing to the minerals in the mountains, through which the water passes.

When water is impregnated with foreign bodies, it generally appears by its weight, colour, taste, smell, heat, or some other sensible quality. Our business, therefore is to choose such water for common use, as is lightest, and without any particular colour, taste, or smell, &c. In most places of Britain the inhabitants have it in their power to make choice of their water; and few things would contribute more to health, than a due attention to this article. But mere indolence

often induces people to make use of the water that is nearest to them, without knowing or considering its qualities.

The common methods of rendering water clear by filtration, or soft by exposing it to the sun and air, &c. are so generally known that it is unnecessary to spend time in explaining them. We shall only in general advise all to avoid waters which stagnate long in small lakes, ponds, or the like, as such waters often become putrid, by the corruption of animal or vegetable bodies with which they abound. Even cattle frequently suffer by drinking, in dry seasons, water which has stood long in small reservoirs, without being supplied by springs, or freshened with showers. All *wells* ought to be kept clean, and have a free communication with the air.

Fermented liquors, which are too strong, hurt digestion; and the body is so far from being strengthened by them, that it is weakened and relaxed. Many imagine that hard labour could not be supported without drinking strong liquors: this is a very erroneous notion. Men who never taste strong liquors are not only able to endure more fatigue, but also live much longer, than those who use them daily. But, suppose strong liquors did enable a man to do more work, they must nevertheless waste the powers of life, and occasion premature old age. They keep up a constant fever, which exhausts the spirits, inflames the blood, and disposes the body to numberless diseases.

But fermented liquors may be too weak as well as too strong; when that is the case, they must either be drank new, or they become sour or dead: when such liquors are drank new, they generate air in the bowels, and occasion flatulencies; and when kept till stale, they turn sour on the stomach, and hurt digestion. For this reason all malt-liquors, cider, &c. ought to be of such strength as to keep till they be ripe, and then they should be used. When such liquors are kept too long, though they should not become sour, yet they generally contract a hardness, which renders them unwholesome.

All families, who can, ought to prepare their own liquors. Since preparing and vending of liquors became one of the most general branches of business, every method has been tried to adulterate them. The great object both to the makers and venders of liquor is to render it intoxicating. But it is well known that this may be done by other ingredients than those which ought to be used for making it strong. It would be imprudent even to name those things which are daily made use of to render liquors heady. Suffice it to say, that the practice is very common, and that all the ingredients used for this purpose are of a narcotic quality. But as all opiates are poisonous, it is easy to see what must be the consequence of this general rule. Though they do not kill suddenly, yet they hurt the nerves, relax and weaken the stomach, and spoil the digestion.

Were fermented liquors faithfully prepared, kept to a proper age, and used in moderation, they would prove real blessings to mankind. But, while they are ill prepared, various ways adulterated, and taken to excess, they must produce many pernicious effects.

We would recommend it to families, not only to prepare their own liquors, but likewise their bread. Bread is so necessary a part of diet, that too much care cannot be bestowed in order to have it sound and wholesome. For this purpose, it is not only necessary that it be made of good grain, but likewise properly prepared, and kept free from all unwholesome ingredients. This, however, we have reason to believe is not always the case with bread prepared by those who make a trade of vending it. Their object is rather to please the eye, than to consult the health. The best bread is that which is neither too coarse nor too fine; well fermented, and made of wheat flour, or rather of wheat and rye mixed together.

To specify the different kinds of aliment, to explain their nature and properties, and to point out their effects in different constitutions, would far exceed the limits of our design. Instead of a detail of this kind, which would not be generally understood, and of

course little attended to, we shall only mention the following easy rules with respect to the choice of aliment.

Persons whose solids are weak and relaxed, ought to avoid all viscid food, or such things as are hard of digestion. Their diet, however, ought to be nourishing; and they should take sufficient exercise in the open air.

Such as abound with blood should be sparing in the use of every thing that is highly nourishing, as fat meat, rich wines, strong ale, and the like. Their food should consist chiefly of bread and other vegetable substances; and their drink ought to be water, whey, or small beer.

Fat people should not eat freely of oily nourishing diet. They ought frequently to use radish, garlic, spices, or such things as are heating, and promote perspiration and urine. Their drink should be water, coffee, tea, or the like; and they ought to take much exercise and little sleep.

Those who are too lean must follow an opposite course.

Such as are troubled with acidities, or whose food is apt to sour upon the stomach, should live much on lean animal food; and those who are afflicted with hot alkaline belchings, ought to use a diet consisting chiefly of acid vegetables.

People who are afflicted with the gout, low spirits, hypochondriac or hysteric disorders, ought to avoid all flatulent food, every thing that is viscid, or hard of digestion, and salted or smoke-dried provisions, and whatever is acid, or apt to turn sour on the stomach. Their food should be light, spare, cool, and of an opening nature.

The diet ought not only to be suited to the age and constitution, but also to the manner of life; a sedentary or studious person should live more sparingly than one who labours hard without doors. Many kinds of food will nourish a peasant very well, which would be almost indigestible to a citizen; and the latter will live upon a diet on which the former would starve.

Those who labour under any particular disease, ought to avoid such aliments as have a tendency to increase it; for example, a gouty person should not indulge in rich wines, strong soups, or gravies, and should avoid all acids. One who is troubled with the gravel ought to shun all astringent aliments; and those who are scorbutic should be sparing in the use of salted provisions, &c.

In the first period of life, our food ought to be light, but nourishing, and frequently taken. Food that is solid, with a sufficient degree of tenacity, is most proper for the state of manhood. The diet suited to the last period of life, when nature is upon the decline, approaches nearly to that of the first. It should be lighter and more succulent than that of vigorous age, and likewise more frequently taken.

It is not only necessary for health, that our diet be wholesome, but also that it be taken at regular periods. Some imagine that long fasting will atone for excess; but this, instead of mending the matter, generally makes it worse. When the stomach and intestines are over-distended with food, they lose their proper tone, and, by long fasting, they become weak, and inflated with wind. Thus either gluttony, or fasting too long, destroys the powers of digestion.

The frequent repetition of aliment is not only necessary for repairing the continual waste of our bodies, but likewise to keep the fluids sound and sweet. Our humours, even in the most healthy state, have a constant tendency to putrefaction, which can only be prevented by frequent supplies of fresh nourishment: when that is wanting too long, the putrefaction often proceeds so far as to occasion very dangerous fevers. Hence we may learn the necessity of regular meals. No person can enjoy a good state of health, whose vessels are either frequently over-charged, or the humours long deprived of fresh supplies of chyle.

Long fasting is extremely hurtful to young people: it not only vitiates their humours, but prevents their growth. Nor is it less injurious to the aged. Most persons, in the decline of life, are afflicted with wind:

this complaint is not only increased, but often rendered dangerous, and even fatal, by long fasting. Old people, when their stomachs are empty, are frequently seized with giddiness, head-aches, and faintness. These complaints may generally be removed by a piece of bread and a glass of wine, or taking any other solid food; which plainly points out the method of preventing them.

It is more than probable, that many of the sudden deaths, which happen in the advanced periods of life, are occasioned by fasting too long, as it exhausts the spirits, and fills the bowels with wind: we would therefore advise people in the decline of life, never to allow their stomachs to be too long empty. Many people take nothing but a few cups of tea, and a little bread, from nine o'clock at night till two or three next afternoon. Such may be said to fast almost three-fourths of their time: this can hardly fail to ruin their appetite, vitiate the humours, and fill the bowels with wind; all which might be prevented by a solid breakfast.

It is a very common practice to eat a light breakfast and heavy supper. This custom ought to be reversed. When people sup late, their supper should be very light; but the breakfast ought always to be solid. If any one eats a light supper, goes soon to bed, and rises betimes in the morning, he will be sure to find an appetite for his breakfast, and may freely indulge it.

The strong and healthy do not indeed suffer so much from fasting as the weak and delicate; but they run great hazard from its opposite, *viz.* repletion. Many diseases, especially fevers, are the effects of too great a fulness of the vessels. Strong people, in high health, have generally a great quantity of blood and other humours. When these are suddenly increased by an overcharge of rich and nourishing diet, the vessels become so much distended, that obstructions and inflammations ensue. Hence so many people are seized with inflammatory and eruptive fevers, &c. after a feast or debauch.

All great and sudden changes in diet are dangerous. What the stomach has long been accustomed to digest,

though less wholesome, will agree better with it than food of a more salutary nature to which it has not been used. When, therefore, a change becomes necessary, it ought always to be made gradually; a sudden transition from a poor and low, to a rich and luxurious diet, or the contrary, might so disturb the functions of the body as to endanger health, or even to occasion death itself.

When we recommend regularity in diet, we would not be understood as condemning every small deviation from it. It is next to impossible for people at all times to avoid some degree of excess; and living too much by rule might make even the smallest deviation dangerous. It may, therefore, be prudent to vary a little, sometimes taking more, sometimes less, than the usual quantity of meat and drink, provided always that a due regard be had to moderation.

Some authors have entered into minute details respecting the various qualities of food: this to me appears unnecessary. That which every person, from experience, has found to agree best with him, is a more just criterion to judge by than any speculative comparison of the nutriment of different aliments. People, however, should not eat or drink indiscriminately; but enjoy those blessings which Providence has sent them in a rational manner.

Of Air.

Unwholesome air is a very common cause of diseases. Few are aware of the danger arising from it. People generally pay some attention to what they *eat* or *drink*, but seldom regard what goes into the lungs, though the latter proves often more suddenly fatal than the former.

Air, as well as water, takes up parts of most bodies with which it comes in contact, and is often so replenished with those of noxious quality, as to occasion immediate death. But such violent effects seldom

happen, as people are generally on their guard against them. The less perceptible influences of bad air prove more generally hurtful to mankind; we shall, therefore endeavour to point out some of these, and to shew whence the danger chiefly arises.

Air may become noxious many ways. Whatever greatly alters its degree of heat, cold, moisture, &c. renders it unwholesome: for example, that which is too hot dissipates the watery parts of the blood, increases the bile, and renders the whole humours thick. Hence proceed bilious and inflammatory fevers, cholera morbus, &c. Very cold air obstructs the perspiration, constringes the solids, and condenses the fluids. It occasions rheumatisms, coughs, and catarrhs, with other diseases of the throat and breast. Air that is too moist destroys the elasticity or spring of the solids, induces phlegmatic or lax constitutions, and disposes the body to agues, or intermitting fevers, dropsies, &c.

Wherever great numbers of people are crowded into one place, if the air has not a free circulation, it soon becomes unwholesome. Hence it is that delicate persons are apt to turn sick, or faint, in crowded churches, assemblies, or any other place where the air is injured by breathing, fires, candles, or the like.

In great cities, so many things tend to contaminate the air, that it is no wonder it proves so fatal to the inhabitants. The air in cities is not only breathed repeatedly over, but is likewise loaded with sulphur, smoke, and other exhalations, beside the vapours continually arising from innumerable putrid substances. All possible care should be taken to keep the streets of large towns open and wide, that the air may have a free current through them. They ought, likewise, to be kept very clean. Nothing tends more to pollute and contaminate the air of a city than dirty streets.

Wherever air stagnates long, it becomes unwholesome. Hence, the unhappy persons confined in gaols not only contract malignant fevers themselves, but often communicate them to others. Nor are many of the holes, for we cannot call them houses, possessed by the poor in great towns, much better than gaols.

These low dirty habitations are the very lurking places of bad air and contagious diseases. Such as live in them seldom enjoy good health; and their children commonly die young. In the choice of a house, those who have it in their power ought always to pay the greatest attention to open free air.

The various methods which luxury has invented to make houses close and warm, contribute not a little to render them unwholesome. No house can be wholesome, unless the air has a free passage through it. For which reason, houses ought daily to be ventilated, by opening opposite windows, and admitting a current of fresh air into every room. Beds, instead of being made up as soon as the people rise out of them, ought to be turned down, and exposed to the fresh air, unless it be extremely damp, from the open windows through the day. This would expel any noxious vapour, and could not fail to promote the health of the inhabitants.

In hospitals, gaols, ships, &c. where that cannot be conveniently done, ventilators should be used. The method of expelling foul, and introducing fresh, air, by means of ventilators, is a most salutary invention, and is, indeed, one of the most useful of all our modern medical improvements. It is capable of universal application, and is fraught with numerous advantages, both to those in health and sickness. In all places, where numbers of people are crowded together, ventilation becomes absolutely necessary.

Air, which stagnates in mines, wells, cellars, &c. is extremely noxious. That kind of air is to be avoided as the most deadly poison. It often kills almost as quickly as lightning. For this reason people should be very cautious in opening cellars that have been long shut, or going down into deep wells or pits, especially if they have been kept close covered.*

Many people who have splendid houses, choose to

* We have daily accounts of persons who lose their lives by going down into deep wells, and other places where the air stagnates: all these accidents might be prevented by only letting down a lighted candle before them, and stopping when they perceive it go out; yet this precaution, simple as it is, is seldom used.

sleep in small apartments. This conduct is very imprudent. A bed-chamber ought always to be well aired; as it is generally occupied in the night only, when all doors and windows are shut. If a fire be kept in it, the danger from a small room becomes still greater. Numbers have been stifled when asleep by a fire in a small apartment, which is always hurtful.

Those who are obliged, on account of business, to spend the day in close towns, ought, if possible, to sleep in the country. Breathing free air in the night will, in some measure, make up for the want of it through the day. This practice would have a greater effect in preserving the health of citizens than is commonly imagined.

Delicate persons ought, as much as possible, to avoid the air of great towns. It is peculiarly hurtful to the asthmatic and consumptive. Such persons should avoid cities as they would the plague. The hypochondriac are likewise much hurt by it. Persons so much afflicted with this malady while in town that it seemed impossible for them to live, upon being removed to the country, were immediately relieved. The same observation holds with regard to nervous and hysteric women. Many people, indeed, have it not in their power to change their situation in quest of better air. All we can say to such persons is, that they should go as often abroad into the open air as they can, that they should admit fresh air frequently into their houses, and take care to keep them very clean. Proper attention to air and cleanliness would tend more to preserve the health of mankind than all the prescriptions of the faculty.

Surrounding houses too closely with planting of thick woods, likewise tend to render the air unwholesome. Wood not only obstructs the free current of the air, but sends forth great quantities of moist exhalations, which render it constantly damp. Wood is very agreeable at a proper distance from a house, but should never be planted too near it, especially in a flat country. Many of the gentlemen's seats in England

are rendered very unwholesome from the great quantity of wood which surrounds them.

Houses situated in low marshy countries, or near large lakes of stagnating water, are likewise unwholesome. Waters which stagnate not only render the air damp, but load it with putrid exhalations, which produce the most dangerous and fatal diseases. Those who are obliged to inhabit marshy countries, ought to make choice of the dryest situations they can find, to live generously, and to pay the strictest regard to cleanliness.

If fresh air be necessary for those in health, it is still more so for the sick, who often lose their lives for want of it. No medicine is so beneficial to the sick as fresh air. It is the most reviving of all cordials, if it be administered with prudence. We are not, however, to throw open doors and windows at random upon the sick. Fresh air is to be let into the chamber gradually, and, if possible, by opening the windows of some other apartment.

The air of a sick person's chamber may be greatly freshened, and the patient much revived, by sprinkling the floor, bed, &c. frequently with vinegar, juice of lemon, or any other strong vegetable acid.

In places where numbers of sick are crowded into the same house, or, which is often the case, into the same apartment, the frequent admission of fresh air becomes absolutely necessary. Infirmaries, hospitals, &c. are often rendered so noxious, for want of proper ventilation, that the sick run more hazard from them than from the disease.

Physicians, surgeons, and others, who attend hospitals, ought, for their own safety, to take care that they be properly ventilated. Such persons as are obliged to spend most of their time among the sick, run great hazard of being themselves infected, when the air is bad. All hospitals, and places of reception for the sick, ought to have an open situation, at some distance from any great town; and such patients as labour under any infectious disease ought never to be suffered to come near the rest.

Great attention has of late years been paid in selecting proper sites for erecting hospitals, as well as to keep them properly ventilated; but the interment of the dead in the middle of crowded towns is not yet done away. The ancients never interred their dead in churches or church-yards: this is evident from the first words, "*Siste, viator*," (stop traveller,) on the old Roman tomb-stones; and is a proof that they interred their dead, not in temples or churches, but adjoining the road side.

Of Exercise.

MANY people look upon the necessity man is under of earning his bread by labour, as a curse. Be that as it may, it is evident, from the structure of the body, that exercise is not less necessary than food for the preservation of health: those whom poverty obliges to labour for daily bread, are not only the most healthy, but generally the most happy, part of mankind. Industry seldom fails to place them above want, and activity serves them instead of physic. This is peculiarly the case with those who live by the culture of the ground. The great increase of inhabitants in infant colonies, and the longevity of such as follow agriculture, every where evidently prove it to be the most healthful, as well as the most useful, employment.

The love of activity shews itself very early in man. So strong is this principle, that a healthy youth cannot be restrained from exercise even by the fear of punishment. Our love of motion is surely a strong proof of its utility. Nature implants no disposition in vain. It seems to be a catholic law throughout the whole animal creation, that no creature, without exercise, should enjoy health, or be able to find subsistence. Every creature, except man, takes as much of it as is necessary.

Inactivity never fails to induce an universal relaxation of the solids, which disposes the body to innume-

rable diseases. When the solids are relaxed, neither the digestion nor any of the secretions can be duly performed. In this case the worst consequences must ensue. How can persons who loll all day in easy chairs, and sleep all night on beds of down, fail to be relaxed? Nor do such greatly mend the matter, who never stir abroad but in a coach, sedan, or such like. These elegant pieces of luxury are become so common, that the inhabitants of great towns seem to be in some danger of losing the use of their limbs altogether. It is now below any one to walk who can afford to be carried. How ridiculous it would seem to a person, unacquainted with modern luxury, to behold the young and healthy swinging along on the shoulders of their fellow-creatures! or to see a fat carcase, overrun with diseases occasioned by inactivity, dragged through the streets by half a dozen horses.

Glandular obstructions, now so common, generally proceed from inactivity. These are the most obstinate of maladies. So long as the liver, kidneys, and other glands duly perform their functions, health is seldom impaired; but when they fail, nothing can restore it. Exercise is almost the only cure we know for glandular obstructions: indeed, it does not always succeed as a remedy; but there is reason to believe that it would seldom fail to prevent these complaints, were it used in due time. One thing is certain, that, amongst those who take sufficient exercise, glandular diseases are very little known; whereas, the indolent and inactive are seldom free from them.

Weak nerves are the constant companions of inactivity. Nothing but exercise and open air can brace and strengthen the nerves, or prevent the endless train of diseases which proceed from a relaxed state of these organs. We seldom hear the active and laborious complain of nervous diseases: these are reserved for the sons of ease and affluence. Many have been completely cured of these disorders by being reduced, from a state of opulence, to labour for their daily bread. This plainly points out the sources from whence ner-

vous diseases flow, and the means by which they may be prevented.

It is absolutely impossible to enjoy health where the perspiration is not duly carried on; but this can never be the case where exercise is neglected. When the matter which ought to be thrown off by perspiration is retained in the body, it vitiates the humours, and occasions the gout, fevers, rheumatism, &c. Exercise alone would prevent many of those diseases which cannot be cured, and would remove others where medicine proves ineffectual.

A late author,* in his excellent Treatise on Health, says, that the weak and valetudinary ought to make exercise a part of their religion. We would recommend this, not only to the weak and valetudinary, but to all whose business does not oblige them to take sufficient exercise; as sedentary artificers, shopkeepers, studious persons, &c. Such ought to use exercise as regularly as they take food. This might generally be done without any interruption to business, or real loss of time.

No indolence hurts the health more than the modern custom of lying in bed too long in the morning. This is the general practice in great towns. The inhabitants of cities seldom rise before eight or nine o'clock; but the morning is undoubtedly the best time for exercise, while the stomach is empty, and the body refreshed with sleep. Besides, the morning air braces and strengthens the nerves, and, in some measure, answers the purpose of a cold bath. Let any one who has been accustomed to lie in bed till eight or nine o'clock, rise by six or seven, spend a couple of hours in walking, riding, or any employment without doors, and he will find his spirits cheerful and serene through the day, his appetite keen, and his body braced and strengthened. Custom soon renders early rising agreeable, and nothing contributes more to the preservation of health.

The inactive are continually complaining of pains o

* Dr. Cheyne.

the stomach, flatulencies, indigestions, &c. These complaints, which pave the way to many others, are not to be removed by medicines. They can only be cured by a vigorous course of exercise; to which indeed they seldom fail to yield.

Exercise, if possible, ought always to be taken in the open air. When that cannot be done, various methods may be contrived for exercising the body within doors, as the dumb-bell, &c. It is not necessary to adhere strictly to any particular kind of exercise; the best way is, to use that longest which is most suitable to the strength and constitution. Those kinds of exercise which give action to most of the bodily organs, are always to be preferred; as walking, running, riding, digging, swimming, and such like.

Such as can, ought to spend two or three hours a day on horseback; those who cannot ride, should employ the same time in walking. Exercise should never be continued too long. Over-fatigue prevents the benefit of exercise, and, instead of strengthening the body, tends to weaken it.

In some countries, laws have been made, obliging every man, of whatever rank, to learn some mechanical employment. Whether such laws were designed for the preservation of health, or the encouragement of manufacture, is a question of no importance. Certain it is, that if gentlemen were frequently to exercise themselves in this way, it might produce good effects. They would, at least, derive as much honour from a few masterly specimens of their own workmanship, as from the character of having ruined most of their companions by gaming or drinking. Besides, men of leisure, by applying themselves to the mechanical arts, might improve them to the great benefit of society.

Indolence not only occasions diseases, and renders men useless to society, but promotes all manner of vice. To say a man is idle, is little better than to call him vicious. The mind, if not engaged in some pursuit, is in quest of ideal pleasures, or impressed with the apprehension of some imaginary evil. From these sources proceed most of the miseries of mankind.

Certainly man was never intended to be idle: inactivity frustrates the very design of his creation; whereas an active life is a guardian of virtue, and the greatest preservative of health.

Of Sleep and Clothing.

Sleep, as well as diet, ought to be duly regulated. Too little sleep weakens the nerves, exhausts the spirits, and occasions diseases; and too much renders the mind dull, the body gross, and disposes to apoplexies, lethargies, and other complaints of a similar nature. A medium ought, therefore, to be observed; but this is not easy to fix. Children require more sleep than grown persons, the laborious than the idle, and such as eat and drink freely than those who live abstemiously. Besides, the real quantity of sleep cannot be measured by time; as one person will be more refreshed by five or six hours' sleep than another by eight or ten.

Children may always be allowed to take rest to any degree; but for adults, six or seven hours is certainly sufficient, and no one ought to exceed eight. Those who lie in bed more than eight hours may slumber, but they can hardly be said to sleep; such generally toss and dream away the forepart of the night, sink to rest towards morning, and dose till noon.

If persons wish to enjoy sound and refreshing sleep, they ought regularly to observe the following rules.

1. They should retire to bed at an early hour.
2. Eat only a light supper.
3. Attend to a proper posture of lying in bed; which ought to be on one side, that all the muscles may be as much as possible relaxed.
4. Use just as many clothes as will prevent their taking cold.
5. All improper pressure from clothes or dress should be avoided.
6. All light should be excluded from the bed-room.

7. A due degree of exercise ought to be used daily.

Nature points out night as the proper season for sleep. Nothing more certainly destroys the constitution than night-watching It is a great pity that a practice so destructive to health should be so much in fashion. How quickly the want of rest in due season will blast the most blooming complexion, or ruin the best constitution, is evident from the ghastly countenances of those, who, as the phrase is, turn day into night, and night into day.

It is certain that too much exercise will prevent sleep, as well as too little. We seldom, however, hear the active and laborious complain of restless nights. It is the indolent and slothful who generally have these complaints. Is it any wonder that a bed of down should not be refreshing to a person who sits all day in an easy chair? A great part of the pleasure of life consists in alternate rest and motion; but they who neglect the latter can never relish the former. The labourer enjoys more true luxury in plain food and sound sleep, than is to be found at sumptuous tables and on downy pillows, where exercise is wanting.

Nothing more certainly disturbs our repose than anxiety. When the mind is not at ease, one seldom enjoys sound sleep. This greatest of human blessings flies the wretched, and visits the happy, the cheerful, and the devout. This is a sufficient reason why every man should endeavour to be as easy in his mind as possible when he goes to rest. Many, by indulging grief and anxious thought, have banished sound sleep so long, that they could never afterwards enjoy it.

To rise early, it is necessary to go early to bed, both of which become habitual, and evince sobriety, regularity, and an exemption from dissipation. He who retires to rest at an early hour, has not time to partake of what is called the pleasures of the table; but, unlike the votary of Bacchus, he enjoys his rest undisturbed. He requires no opiates. His sleep is sound, occasioned by tranquillity of body and mind, temperance, and exercise. Fully refreshed, he rises in the morning, vigorous and cheerful, to breathe the pure air, and go

through his daily occupation. Nothing, in a word, under God, can more certainly contribute to health and longevity than a custom of going to bed, and rising, early.

OF CLOTHING.

The clothing ought to be suited to the climate. Custom has, no doubt, a very great influence in this article, but no custom can ever change the nature of things so far as to render the same clothing fit for an inhabitant of Nova Zembla and the island of Jamaica. It is not indeed necessary to observe an exact proportion between the quantity of clothes we wear, and the degree of latitude which we inhabit; but, at the same time, proper attention ought to be paid to *it*, as well as the openness of the country, the frequency and violence of storms, &c.

In youth, while the blood is warm, and the perspiration free, it is not necessary to cover the body with a great quantity of clothes; but in the decline of life, when the skin becomes rigid, and the humours more cool, the clothing should be increased. Many diseases in the latter period of life proceed from a defect of perspiration: these may, in some measure, be prevented, by a suitable addition to the clothing, or by wearing such as are better calculated for promoting the discharge from the skin, as clothes made of cotton, flannel, &c.

The clothing ought likewise to be suited to the season of the year. Clothing may be warm enough for summer, which is by no means sufficient for winter. The greatest caution, however, is necessary in making these changes. We ought neither to put off our winter clothes too soon, nor to wear our summer ones too long. In this country, the winter often sets in very early with great rigour, and we have frequently cold weather even after the commencement of the summer months. It would likewise be prudent not to make the change all at once, but to do it gradually; and indeed the change of apparel in this climate ought to b

very inconsiderable, especially among those who have passed the meridian of life.

Clothes often become hurtful by their being made subservient to the purposes of pride or vanity. Mankind in all ages seem to have considered clothes in this view; accordingly their fashion and figure have been continually varying, with very little regard either to health, the climate, or conveniency. Even the human shape is often attempted to be mended by dress, and those who know no better, believe that mankind would be monsters without its assistance. The most destructive of them, in this country, is that of squeezing the stomach and bowels into as narrow a compass as possible, to procure what is falsely called a fine shape. By this practice, the action of the stomach and bowels, the motion of the heart and lungs, and almost all the vital functions, are obstructed. Hence proceed indigestions, syncopes or fainting-fits, coughs, consumptions of the lungs, and other complaints so common among females.

The feet likewise often suffer by pressure. How a small foot came to be reckoned genteel, I will not pretend to say; but certain it is, that this notion has made many persons lame. Almost nine-tenths of mankind are troubled with corns, a disease that is seldom or never occasioned but by strait shoes. Corns are not only very troublesome, but, by rendering people unable to walk, they may likewise be considered as the remote cause of other diseases.*

In fixing on the clothes, due care should be taken to avoid all tight bandages. Garters, &c. when drawn too tight, not only prevent the free motion and use of the parts about which they are bound, but likewise obstruct the circulation of the blood, which prevents the equal nourishment and growth of these parts, and occasions various diseases. Tight bandages about the neck, as stocks, cravats, necklaces, &c. are ex-

* The proper and only safe method of curing corns is, to soak the foot in warm water, and to cut the corn, repeating the operation once a week till the scarf-skin is restored to its former thinness; and the patient must afterwards be careful not to use strait shoes.

tremely dangerous. They obstruct the blood in its course from the brain, by which means head-aches, vertigoes, apoplexies, and other fatal diseases, are often occasioned.

The perfection of dress is, to be easy and clean. Nothing can be more ridiculous than for one to make himself a slave to fine clothes. Such a one, and many such there are, would rather remain as fixed as a statue from morning to night, than discompose a single hair, or alter the position of a pin. Were we to recommend any particular pattern for dress, it would be that which is worn by the people called Quakers. They are always neat, clean, and often elegant, without any thing superfluous. What others lay out upon tawdry laces, ruffles, and ribbands, they bestow upon superior cleanliness. Finery is only the affectation of dress, and very often covers a great deal of dirt.

We shall only add, with regard to clothing, that it ought not only to be suited to the climate, the season of the year, and the period of life, but likewise to the constitution. Robust persons are able to endure either cold or heat better than the delicate, consequently may be less attentive to their clothing. But the precise quantity of clothes necessary for any person cannot be determined by reasoning. It is entirely a matter of experience, and every man is the best judge for himself what quantity of clothes is necessary to keep him warm.

Of late years a reformation has taken place in female dress, at once beneficial to the health, and honourable to the taste of our fair countrywomen. Elegant simplicity has succeeded to capricious absurdity. The distorture of close stays is abolished, and the body left to its natural shape; the dangerous and awkward position of the foot, treading on the tiptoe on high-heeled shoes, has given place to the flat heel; in which the wearer can walk with firmness, ease, and grace. Nature and good sense have resumed their dominion.

The men, however, have not been equally happy—The neck is ridiculously and unhealthfully bolstered

up and closely bandaged, so as to interrupt the circulation of the blood, and occasion eruptions and blotches in the face, head-aches, apoplexies, not unfrequently the occasion of premature death. To this is added, literally, a strait waistcoat, and breeches, so buttoned and tied at the knee, as to prevent the necessary freedom of motion; the legs are compressed in boots, or when shoes are worn, they are sometimes square-toed, sometimes sharp-pointed; every thing, in short, is consulted but the shape and free play of the foot. Cramps and corns inevitably succeed, and the votary of fashion too late repents the sacrifices made to her caprice.

Of Intemperance.

A MODERN author observes, that "temperance and exercise are the two best physicians in the world." He might have added, that if these were duly regarded, there would be little occasion for any other. Temperance may justly be called the parent of health: yet numbers of mankind act as if they thought diseases and death too slow in their progress, and by intemperance and debauch seem to solicit their approach.

The danger of intemperance appears from the very construction of the human body. Health depends on that state of the solids and fluids that fits them for the due performance of the vital functions; and while these go regularly on, we are sound and well; but whatever disturbs them, necessarily impairs health. Intemperance never fails to disorder the whole animal economy; it hurts the digestion, relaxes the nerves, renders the different secretions irregular, vitiates the humours, and occasions numberless diseases.

The analogy between the nourishment of plants and animals affords a striking proof of the danger of intemperance. Moisture and manure greatly promote vegetation; yet an over-quantity of either will entirely destroy it. The best things become hurtful, nay, de-

structive, when carried to excess. Hence we learn, that the highest degree of human wisdom consists in regulating our appetites and passions, so as to avoid all extremes. It is that chiefly which entitles us to the character of rational beings. The slave of appetite will ever be the disgrace of human nature.

The great rule of diet is to study simplicity. Nature delights in the most plain and simple food, and every animal, except man, follows her dictates. Man alone riots at large, and ransacks the whole creation, in quest of luxuries to his own destruction. An elegant writer,* of the last age, speaks thus of intemperance in diet: "For my part, when I behold a fashionable table set out in all its magnificence, I fancy that I see gouts and dropsies, fevers and lethargies, with other innumerable distempers, lying in ambuscade among the dishes."

Nor is intemperance in other things less destructive than in diet. How quickly does the immoderate pursuit of carnal pleasures, or the abuse of intoxicating liquors, ruin the best constitution! Indeed these vices generally go hand in hand. Hence we often behold the votaries of Bacchus and Venus, even before they have arrived at the prime of life, worn out with diseases, and hastening with swift pace to an untimely grave. Did men reflect on the painful diseases and premature deaths which are daily occasioned by intemperance, it would be sufficient to make them shrink back with horror from the indulgence even of their darling pleasures.

Intemperance does not hurt its votaries alone; the innocent too often feel the direful effects of it. How many wretched orphans are to be seen embracing dunghills, whose parents, regardless of the future, spent in riot and debauch what might have served to bring up their offspring in a decent manner! How often do we behold the miserable mother, with her helpless infants, pining in want, while the cruel father is indulging his insatiate appetites!

* Addison.

Families are not only reduced to misery, but even extirpated, by intemperance. Nothing tends so much to prevent propagation, and to shorten the lives of children, as the intemperance of parents. The poor man, who labours all day, and at night lies down contented with his humble fare, can boast a numerous offspring; while his pampered lord, sunk in ease and luxury, often languishes without an heir to his ample fortunes, Even states and empires feel the influence of intemperance, and rise or fall as it prevails.

Instead of mentioning the different kinds of intemperance, and pointing out their influence upon health, we shall only, by way of example, make a few observations on one particular species of that vice, *viz.* the abuse of intoxicating liquors.

Every act of intoxication puts nature to the expence of a fever, in order to discharge the poisonous draught. When this is repeated almost every day, it is easy to foresee the consequence. That constitution must be strong indeed, which is able long to hold out under a daily fever! but fevers occasioned by drinking do not always go off in a day; they frequently end in an inflammation of the breast, liver, or brain, and produce fatal effects.

Though the drunkard should not fall by an acute disease, he seldom escapes those of a chronic kind. Intoxicating liquors, when used to excess, weaken the bowels, and spoil the digestion; they destroy the power of the nerves, and occasion paralytic and convulsive disorders; they likewise heat and inflame the blood, destroy its balsamic quality, render it unfit for circulation, and the nourishment of the body. Hence obstructions, atrophies, dropsies, and consumptions of the lungs. These are the common ways in which drunkards make their exit. Diseases of this kind, when brought on by hard drinking, seldom admit of a cure.

Many people injure their health by drinking, who seldom get drunk. The continual habit of *soaking*, as it is called, though its effects be not so violent, is not less pernicious. When the vessels are kept con-

stantly full and upon the stretch, the different digestions can neither be duly performed, nor the humours properly prepared. Hence most people of this character are affected with the gout, the gravel, ulcerous sores in the legs, &c. If these disorders do not appear, they are seized with low spirits, hypochondriacal affections, and symptoms of indigestion. Consumptions are now so common, that it is thought one-tenth of the inhabitants of great towns die of that disease.

Hard drinking is, no doubt, one of the causes to which we must impute the increase of consumptions. The great quantities of viscid malt-liquor drank by the common people of England, cannot fail to render the blood sizy, and unfit for circulation; from whence proceed obstructions and inflammations of the lungs. There are few great ale-drinkers who are not phthisical; nor is that to be wondered at, considering the glutinous and almost indigestible nature of strong ale.

Those who drink ardent spirits or strong wine run still greater hazard: these liquors heat and inflame the blood, and tear the tender vessels of the lungs to pieces; yet so great is the consumption of them in this country, that one would almost be induced to think that the inhabitants lived upon them.

The habit of drinking proceeds frequently from misfortunes in life. The miserable fly to it for relief. It affords them indeed a temporary ease. But, alas! this solace is short-lived; and, when it is over, the spirits sink as much below their usual tone as they had before been raised above it. Hence a repetition of the dose becomes necessary, and every fresh dose makes way for another, till the unhappy wretch becomes a slave to the bottle, and at length falls a sacrifice to what at first, perhaps, was taken only as a medicine. No man is so dejected as the drunkard, when his debauch is gone off. Hence it is, that those who have the greatest flow of spirits while the glass circulates freely, are of all others the most melancholy when sober, and often put an end to their own miserable existence in a fit of spleen.

Drunkenness not only proves destructive to health,

but likewise to the faculties of the mind. It is strange that creatures, who value themselves on account of a superior degree of reason to that of brutes, should take pleasure in sinking so far below them.* Were such as voluntarily deprive themselves of the use of reason, to continue ever after in that condition, it would seem but a just punishment. Though this be not the consequence of one act of intoxication, it seldom fails to succeed a course of it. By a habit of drinking, the greatest genius is often reduced to a mere idiot.

Intoxication is peculiarly hurtful to young persons. It heats their blood, impairs their strength, and obstructs their growth; besides, the frequent use of strong liquors in the early part of life destroys any benefit that might arise from them afterwards. Those who make a practice of drinking generous liquors when young, cannot expect to reap any benefit from them as a cordial in the decline of life.

Drunkenness is not only in itself a most abominable vice, but is an inducement to many others. There is hardly any crime so horrid that the drunkard will not perpetrate for the love of liquor. We have known mothers sell their children's clothes, the food that they should have eat, and afterwards even the infants themselves, in order to purchase the accursed draught.

The first propensities to intemperance, both in eating and drinking, ought to be carefully checked. The stomach being distended, occasions a vacuum, which produces an habitual craving of the appetite; and the consequences are heaviness, debility and disease.

* It is amazing, that our improvements in arts, learning, and politeness, have not put the barbarous custom of drinking to excess out of fashion. It is indeed less common in South Britain than it was formerly, but it still prevails much in the North, where this relic of barbarity is mistaken for hospitality. There no man is supposed to entertain his guests well, who does not make them drunk. Forcing people to drink, is certainly the greatest piece of rudeness that any man can be guilty of. Manliness, complaisance, or mere good nature, may induce a man to take his glass, if urged to it, at a time when he might as well take poison. The custom of drinking to excess has long been out of fashion in France; and, as it begins to lose ground among the politer part of the English, we hope it will soon be banished from every part of this island.

In like manner, frequent indulgence in drinking causes a depression of the spirits, only to be suspended by having recourse to a cup of the favourite liquor; and the drunkard considers the repetition of a debauch the best remedy for its consequences next day. Strongly mixed liquors are repeated; and a succession of hot stimulants increase the action of the heart and arteries; the lungs become inflamed, and a total relaxation of the system ensues.

Of Cleanliness.

The want of cleanliness is a fault which admits of no excuse. Where water can be had for nothing, it is surely in the power of every person to be clean. The continual discharge from our bodies by perspiration, renders a frequent change of apparel necessary; as it promotes the secretion from the skin, which is so necessary to health. When that matter which ought to be carried off by perspiration is either retained in the body, or re-absorbed from dirty clothes, it must occasion diseases.

Diseases of the skin are chiefly owing to the want of cleanliness. They may indeed be caught by infection, or brought on by poor living, unwholesome food, &c. but they will seldom continue long where cleanliness prevails. To the same cause must we impute the various kinds of vermin which infest the human body, houses, &c. These may always be banished by cleanliness alone; and wherever they abound, we have reason to believe it is neglected.

One common cause of putrid and malignant fevers is the want of cleanliness. These fevers commonly begin among the inhabitants of close dirty houses, who breathe unwholesome air, take little exercise, and wear dirty clothes. There the infection generally originates, which often spreads far and wide, to the destruction of many. Hence cleanliness may be considered as an object of public attention. It is not suf-

ficient that I be clean myself, while the want of it in my neighbour affects my health as well as his. If dirty people cannot be removed as a common nuisance, they ought at least to be avoided as infectious. All who regard their health should keep at a distance even from their habitations.

In places where great numbers of people are collected, cleanliness becomes of the utmost importance. It is well known that infectious diseases are communicated by tainted air. Every thing, therefore, which tends to pollute the air, or spread the infection, ought with the utmost care to be guarded against. For this reason, in great towns, no filth of any kind should be permitted to lie upon the streets. Nothing is more apt to convey infection than the excrements of the diseased.

In many great towns the streets are little better than dunghills; being frequentiy covered with ashes, dung, and filth of every kind. Even slaughter-houses are often to be seen in the very centre of great towns. The putrid blood, excrements, &c. with which these places are generally covered, cannot fail to taint the air, and render it unwholesome. How easily might this be prevented by active magistrates, who have it always in their power to make proper laws relative to things of this nature, and to enforce the observance of them.

We are sorry to say, that the importance of general cleanliness does not seem to be sufficiently understood by the magistrates of most great towns in Britain; though health, pleasure, and delicacy, all conspire to recommend an attention to it. Nothing can be more agreeable to the senses, more to the honour of the inhabitants, or more conducive to their health, than a clean town; nor can any thing impress a stranger with a more disrespectful idea af any people, than its opposite. Whatever pretensions people may make to learning, politeness, or civilization, we will venture to affirm, that while they neglect cleanliness, they are in a state of barbarity.

It is remarkable that, in most eastern countries, cleanliness makes a great part of their religion. The Ma-

hometan as well as the Jewish religion enjoins various bathings, washings, and purifications. No doubt these might be designed to represent inward purity; but they were at the same time calculated for the preservation of health. However whimsical these washings may appear to some, few things would tend more to prevent diseases than a proper attention to many of them. Were every person, for example, after visiting the sick, handling a dead body, or touching any thing that might convey infection, to wash before he went into company, or sat down to meat, he would run less hazard either of catching the infection himself, or of communicating it to others.

Frequent washing not only removes the filth which adheres to the skin, but likewise promotes the perspiration, braces the body, and enlivens the spirits. How refreshed, how cheerful, and agreeable, does one feel on being shaved, washed, and shifted; especially when these offices have been neglected longer than usual!

The eastern custom of washing the feet, though less necessary in this country, is nevertheless a very agreeable piece of cleanliness, and contributes greatly to the preservation of health. The sweat and dirt with which these parts are frequently covered, cannot fail to obstruct the perspiration. This piece of cleanliness would often prevent colds and fevers. Were people careful to bathe their feet and legs in lukewarm water at night, after being exposed to cold or wet through the day, they would seldom experience the ill effects which often proceed from these causes.

A proper attention to cleanliness is no where more necessary than on shipboard. If epidemical distempers break out there, no one can be safe. The best way to prevent them is, to take care that the whole company be cleanly in their clothes, bedding, &c. When infectious diseases do break out, cleanliness is the most likely means to prevent their spreading; nor is it less necessary to prevent their returning afterwards, or being conveyed to other places. For this purpose, the clothes, bedding, &c. of the sick ought to be carefully washed and fumigated. Infection will

lodge a long time in dirty clothes, and afterwards break out in the most terrible manner.

In places where great numbers of sick people are collected together, as prisons, infirmaries, &c. cleanliness ought to be most punctually observed. The very smell in such places is often sufficient to make one sick. It is easy to imagine what effect that is likely to have upon the diseased. In an hospital or infirmary, where cleanliness is neglected, a person in perfect health has a greater chance to become sick, than a sick person has to get well.

Few things are more unaccountable than the neglect, or rather dread of cleanliness, which appears among those who have the care of the sick; they think it almost criminal to suffer any thing that is clean to come near a person in a fever, for example, and would rather allow him to wallow in all manner of filth than change the least bit of his linen. If cleanliness be necessary for persons in health, it is certainly more so for the sick. Many diseases may be cured by cleanliness alone; most of them might be mitigated by it; and, where it is neglected, the slightest disorders are often changed into the most malignant. The same mistaken care which prompted people to prevent the least admission of fresh air to the sick, seems to have induced them to keep them dirty. Both these destructive prejudices will, we hope, be soon entirely eradicated.

Cleanliness is certainly agreeable to our nature. We cannot help approving it in others, even though we should not practise it ourselves. It sooner attracts our regard than even finery itself, and often gains esteem where that fails. It is an ornament to the highest as well as the lowest stations, and cannot be dispensed with in either. It ought to be carefully cultivated every where, but especially in populous cities.

Poverty often produces uncleanliness. The poor man, while he complains of the want of things beyond his reach, neglects the most important objects of comfort, pure air and cleanliness. These are in the power of every one, and the want of them in the most neces-

sitous, can only be attributed to a most inexcusable indolence, which, instead of increasing pity for their situation, will deter Charity herself from the presence of their impure persons and filthy habitations.

Of Infection.

Many diseases are infectious. Every person ought, therefore, as far as he can, to avoid all unnecessary communication with the diseased. The common practice of visiting the sick, though often well meant, is followed by many ill consequences. Far be it from us to discourage any act of charity or benevolence, especially towards those in distress; but we cannot help blaming such as endanger their own or their neighbours' lives, by a mistaken friendship, or impertinent curiosity.

The houses of the sick, especially in the country, are generally crowded from morning till night with idle visitors. It is customary, in such places, for servants and young people to wait upon the sick by turns, and even to sit up with them all night. It would be wonderful indeed should such always escape. Experience teaches us the danger of this conduct. People often catch fevers in this way, and communicate them to others, till at length they become epidemic.

It would be thought highly improper for one who had not had the small-pox, to wait upon a patient in that disease; yet many other fevers are almost as infectious as the small-pox, and not less destructive. Some imagine that fevers prove more fatal in villages than in great towns, for want of proper medical assistance. This may sometimes be the case; but I am inclined to think it oftener proceeds from the causes above mentioned.

Were a plan to be laid down for communicating infection, it could not be done more effectually than by the common method of visiting the sick. Such visitors not only endanger themselves and their connexions,

but likewise hurt the sick. By crowding the house, they render the air unwholesome, and by their private whispers, and dismal countenances, disturb the imagination of the patient, and depress his spirits. Persons who are ill, especially in fevers, ought to be kept as quiet as possible. The sight of strange faces, and every thing that disturbs the mind, hurts them.

The common practice, in country places, of inviting great numbers of people to funerals, and crowding them into the same apartment where the corpse lies, is another way of spreading infection, which does not always die with the patient. Every thing that comes into contact with the body, while alive, receives the contagion; and some of them, as clothes, blankets, &c. will retain it for a long time. Persons who die of infectious disorders, ought not to lie long unburied; and people should keep as much as possible at a distance from them.

Many are the causes which tend to diffuse infection through populous cities. The whole atmosphere of a large town is one contaminated mass, abounding with various kinds of infection, and must be pernicious to health. The best advice that we can give to such as are obliged to live in large cities is, to choose an open situation; to avoid narrow, dirty, crowded streets; to keep their own houses and offices clean; and to be as much abroad in the open air as their time will permit.

It would tend greatly to prevent the spreading of infectious diseases, were proper nurses every where employed to take care of the sick. This might often save a family, or even a whole town, from being infected by one person. We do not mean that people should abandon their friends or relations in distress, but only to put them on their guard against being too much in company with those who are afflicted with diseases of an infectious nature.

Such as wait upon the sick, in infectious diseases, run very great hazard. They should fill their noses with some strong-smelling herb, as rue, tansy, or the like. They ought likewise to keep the patient very clean, to sprinkle the room where he lies with vinegar

or other strong acids, frequently to admit a stream of fresh air into it, and to avoid the smell of his breath as much as they can. They ought never to go into company without having changed their clothes and washed their hands; otherwise, if the disease be infectious, they will, in all probability, carry the contagion along with them.

From the preceding observations it may be inferred, that the frequent and unnecessary visits made, especially by country people, to their friends and neighbours, when in fevers, may be, and frequently are, attended with the worst and most fatal consequences. The sick person is thus incommoded, and the ill-judged officiousness of the visitors often produces bad effects. The infection is carried into other families, and spread far and wide. Here, in cases of epidemical diseases, the servants of a family should never be suffered to act as attendants on the patient, but proper nurses be hired on purpose.

Of the Passions.

The passions have great influence both in the cause and cure of diseases. How the mind affects the body will, in all probability, ever remain a secret. It is sufficient for us to know, that there is established a reciprocal influence between the mental and corporeal parts; and that whatever injures the one disorders the other.

The Passion of Anger ruffles the mind, distorts the countenance, hurries on the circulation of the blood, and disorders the whole vital and animal functions. It induces different spasmodic symptoms; and these occasion various painful complaints in different parts of the body, though chiefly of a temporary nature. It often occasions fevers and other acute diseases; and sometimes even sudden death. This passion is peculiarly hurtful to the delicate, and those of weak nerves. Resentment preys upon the mind, and occa-

sions the most obstinate chronical disorders, which gradually waste the constitution. Nothing shews true greatness of mind more than to forgive injuries; it promotes the peace of society, and greatly conduces to our own ease, health, and felicity. Such as value health should avoid violent gusts of anger, as they would the most deadly poison. Neither ought they to indulge resentment, but to endeavour, at all times, to keep their minds calm and serene.

The influence of *Fear*, both in occasioning and aggravating diseases, is very great. No man ought to be blamed for a prudent concern about life; but too great a desire to preserve it, is often the cause of losing it. Fear and anxiety, by depressing the spirits, not only disposes us to diseases, but often render those diseases fatal which an undaunted mind would probably overcome.

Sudden fear has generally violent effects. Epileptic fits, and other convulsive disorders, are often occasioned by it. Hence the danger of that practice, so common among young people, of frightening one another. Many have lost their lives, and others have been rendered objects of commiseration by frolics of this kind. It is dangerous to tamper with the human passions. The mind may easily be thrown into such disorder, as never again to act with regularity.

But the gradual effects of fear prove most hurtful. The constant dread of some future evil, by dwelling upon the mind, often occasions the very evil itself. Hence it comes to pass, that so many die of those very diseases of which they long had a dread, or which had been impressed on their minds by some accident, or foolish prediction. This, for example, is often the case with women in child-bed. Many of those who die in that situation are impressed with the notion of their death a long time before it happens; and there is reason to believe, that this impression is often the cause of it.

The methods taken to impress the minds of women with the apprehensions of the great pain and peril of child-birth, are very hurtful. Few women die in la-

bour, though many lose their lives after it; which may be thus accounted for. A woman, after delivery, finding herself weak and exhausted, immediately apprehends she is in danger; but this fear seldom fails to obstruct the necessary evacuations, upon which her recovery depends. Thus the sex often fall a sacrifice to their own imagination, when there would be no danger, did they apprehend none.

It seldom happens, that two or three women in a great town die in child-bed, but their death is followed by many others. Every woman of their acquaintance who is with child, dreads the same fate, and the disease becomes epidemical, by the mere force of imagination. This should induce pregnant women to be on their guard, and by all means to avoid those tattling gossips who are continually buzzing in their ears the misfortunes of others. Every thing that may in the least alarm a pregnant or child-bed woman, ought with the greatest care to be guarded against.

We readily admit, that there are cases where the physician ought to give intimation of the patient's danger to some of his near connexions; though even this ought always to be done with the greatest caution; but it never can be necessary in any case, that the whole town and country should know, immediately after the doctor has made his first visit, *that he has no hopes of his patient's recovery.* Persons whose impertinent curiosity leads them to question the physician with regard to the fate of his patient, certainly deserve no other than an evasive answer. A friend, or even a physician, may often do more good by a mild and sympathising behaviour than by medicine, and should never neglect to administer that greatest of all cordials, HOPE.

Grief is one of the most destructive of all the passions. Its effects are permanent: and when it sinks deep into the mind, it generally proves fatal. Anger and fear, being of a more violent nature, seldom last long; but grief often changes into a fixed melancholy, which preys upon the spirits, and wastes the constitution. This passion ought not to be indulged. It may

generally be conquered at the beginning; but when it has gained strength, all attempts to remove it are vain.

No person can prevent misfortunes in life; but it shews true greatness of mind to bear them with serenity. Many persons make a merit of indulging grief, and when misfortunes happen, they obstinately refuse all consolation, till the mind, overwhelmed with melancholy, sinks under the load. Such conduct is not only destructive to health, but inconsistent with *reason*, *religion*, and *common sense*.

Change of ideas is as necessary for health as change of posture. When the mind dwells long upon one subject, especially of a disagreeable nature, it hurts the whole functions of the body. Hence, grief indulged spoils the digestion, and destroys the appetite; by which means the spirits are depressed, the nerves relaxed, the bowels inflated with wind, and the humours for want of fresh supplies of chyle, vitiated. Thus, many an excellent constitution has been ruined by a family misfortune, or any thing that occasioned excessive grief.

The variety of scenes which present themselves to the senses, were certainly designed to prevent our attention from being too long fixed upon any one object. Nature abounds with variety, and the mind, unless fixed down by habit, delights in contemplating new objects. This at once points out the method of relieving the mind in distress. Turn the attention frequently to new objects: examine them for some time. When the mind begins to recoil, shift the scene. By this means, a constant succession of new ideas may be kept up, till the disagreeable ones entirely disappear. Thus, travelling, the study of any art or science, reading or writing on such subjects as deeply engage the attention, will sooner dispel grief than the most sprightly amusements.

It has already been observed, that the body cannot be healthy unless it be exercised: neither can the mind. Indolence indulges grief. When the mind has nothing else to think of but calamities, no wonder that

it dwells there. Few people who pursue business with attention are hurt by grief. Instead therefore of abstracting ourselves from the world or business, when afflictions happen, we ought to engage in it with more than usual attention, to discharge with double diligence the functions of our station, and to mix with friends of a cheerful and social temper.

Some persons, when overwhelmed with grief, betake themselves to drinking. This is making the cure worse than the disease. It seldom fails to end in the ruin of fortune, character, and constitution.

Love is perhaps the strongest of all the passions. At least, when it becomes violent, it is less subject to the control either of the understanding or will, than any of the rest. But though love be a strong passion, it is seldom so rapid in its progress as several of the others. Few persons fall desperately in love all at once. We would therefore advise every one, before he tampers with this passion, to consider well the probability of his being able to obtain the object of his love. When that is not likely, he should avoid every occasion of increasing it. He ought immediately to fly the company of the beloved object; to apply his mind attentively to business or study; and, above all, to endeavour, if possible, to find another object which may engage his affections, and which it may be in his power to obtain.

There is no passion with which people are so ready to tamper as love, although none is more dangerous. Some men make love for amusement, others from mere vanity, or on purpose to shew their consequence with the fair. This is perhaps the greatest piece of cruelty that any one can be guilty of. What we eagerly wish for, we easily credit. Hence the too credulous fair are often betrayed into a situation which is truly deplorable, before they are able to discover that the pretended lover was only in jest. But there is no jesting with this passion. When love has got to a certain height, it admits of no other cure but the possession of its object, which, in this case, ought always, if possible, to be obtained.

Nothing can be better calculated than true religion, to raise and support the mind of its votaries, under every affliction that can befal them. It teaches them, that even the sufferings of this life are preparatory to the happiness of the next, and that all who persist in a course of genuine piety shall at length arrive at complete felicity.

Persons whose business it is to recommend religion to others, should beware of dwelling too much on gloomy subjects. That peace and tranquillity of mind, which true religion is calculated to inspire, is a more powerful argument in its favour, than all the terrors that can be uttered. Terror may, indeed, deter men from outward acts of wickedness, but never can inspire them with that love of God, and real goodness of heart, in which alone true religion consists.

Of the Common Evacuations.

The principal evacuations from the human body are, those by *stool*, *urine*, and *insensible perspiration.* None of these can be long obstructed without impairing the health. When that which ought to be thrown out of the body is too long retained, it not only occasions too great a fulness of the vessels, but acquires qualities which are hurtful to the health, as acrimony, putrescence, &c.

OF THE EVACUATION BY STOOL.

Few things conduce more to health than keeping the body regular. When the feces lie too long in the bowels, they vitiate the humours; and when they are too soon discharged, the body is not sufficiently nourished. A medium is therefore to be desired, which can only be obtained by regularity in diet, sleep, and exercise. Whenever the body is not regular, there is generally reason to suspect a fault in one or other of these.

Persons who eat and drink at irregular hours, and who eat various kinds of food, and drink of several different liquors at every meal, have no reason to expect either that their digestion will be good, or their discharges regular. Irregularity in eating and drinking disturbs every part of the animal economy, and never fails to occasion diseases. Either too much or too little food will have this effect. The former indeed generally occasions looseness, and the latter costiveness, but both have a tendency to hurt the health.

It would be difficult to ascertain the exact number of stools which may be consistent with health, as these differ in the different periods of life, in different constitutions, and even in the same constitution, under a different regimen of diet, exercise, &c. It is, however, generally allowed, that one stool a day is sufficient for an adult, and that less is hurtful. But this, like most general rules, admits of many exceptions. I have known persons in perfect health who did not go to stool above once a week. Such a degree of costiveness, however, is not safe; though the person who labours under it may for some time enjoy tolerable health, yet at length it may occasion diseases.

One method of procuring a stool every day is, to rise betimes, and go abroad in the open air. Not only the posture in bed is unfavourable to regular stools, but also the warmth. This, by promoting the perspiration, lessens all the other discharges.

The method recommended for this purpose, by Mr. Locke, is likewise very proper, viz. *to solicit nature, by going regularly to stool every morning, whether one has a call or not.* Habits of this kind may be acquired, which will in time become natural.

Persons who have frequent recourse to medicines, for preventing costiveness, seldom fail to ruin their constitutions. Purging medicines, frequently repeated, weaken the bowels, hurt the digestion, and every dose makes way for another, till at length they become as necessary as daily bread. Those who are troubled with costiveness ought rather, if possible, to remove it by diet than drugs. They should likewise go thinly

clothed, and avoid every thing of an astringent or of a heating nature.

Such persons as are troubled with an habitual looseness, ought likewise to suit their diet to the nature of their complaint. They should use food which braces and strengthens the bowels, and which is rather of an astringent quality, as wheat-bread made of the finest flour, cheese, eggs, rice boiled in milk, &c. Their drink should be red port, claret, brandy and water in which toasted bread has been boiled, and such like.

As an habitual looseness is often owing to an obstructed perspiration, persons affected with it ought to keep their feet warm, to wear flannel next their skin, and take every other method to promote the perspiration.

OF URINE.

So many things tend to change both the quantity and appearances of the urine, that it is very difficult to lay down any determined rules for judging of either.* Dr. Cheyne says, the urine ought to be equal to three-fourths of the liquid part of our aliment. But suppose any one were to take the trouble of measuring both, he would find, that every thing which altered the de-

* It has long been an observation among physicians, that the appearances of the urine are very uncertain, and very little to be depended on. No one will be surprised at this, who considers how many ways it may be affected, and consequently have its appearance altered. The passions, the state of the atmosphere, the quantity and quality of the food, the exercise, the clothing, the state of the other evacuations, and numberless other causes, are sufficient to induce a change either in the quantity or appearance of the urine. Any one who attends to this will be astonished at the impudence of those daring quacks, who pretend to find out diseases, and prescribe to patients, from the bare inspection of their urine. These impostors, however, are very common all over Britain, and by the amazing credulity of the populace, many of them amass considerable fortunes. Of all the medical prejudices which prevail in this country, that in favour of urine-doctors is the strongest. The common people have still an unlimited faith in their skill, although it has been demonstrated that no one of them is able to distinguish the urine of a horse, or any other animal, from that of a man.

gree of perspiration would alter this proportion, and likewise that different kinds of aliment would afford very different quantities of urine. Though for these and other reasons, no rule can be given for judging of the precise quantity of urine which ought to be discharged, yet a person of common sense will seldom be at a loss to know when it is in either extreme.

As a free discharge of urine, not only prevents, but actually cures, many diseases, it ought by all means to be promoted; and every thing that may obstruct it should be carefully avoided. Both the secretion and discharge of urine are lessened by a sedentary life, sleeping on beds that are too soft and warm, food of a dry or heating quality, liquors which are astringent and heating, as red port, claret, and such like. Those who have reason to suspect that their urine is in too small a quantity, or who have any symptoms of the gravel, ought not only to avoid these things, but what ever else they find has a tendency to lessen the quantity of the urine.

When the urine is too long retained, it is not only resorbed, or taken up again into the mass of fluids, but by stagnating in the bladder it becomes thicker, the more watery parts flying off first, and the more gross and earthy remaining behind. By the constant tendency which these have to concrete, the formation of stones and gravel in the bladder is promoted. Hence it comes to pass, that indolent and sedentary people are much more liable to these diseases, than persons of a more active life.

Many persons have lost their lives, and others have brought on very tedious and even incurable disorders, by retaining their urine too long from a false delicacy. When the bladder has been over-distended, it often loses its power of action altogether, or becomes paralytic; by which means it is rendered unable either to retain the urine, or to expel it properly. The call of nature ought never to be postponed. Delicacy is doubtless a virtue, but that can never be reckoned true delicacy, which induces any one to risk his health or hazard his life.

But the urine may be in too great as well as too small a quantity. This may be occasioned by drinking large quantities of weak watery liquors, by the excessive use of alkaline salts, or any thing that stimulates the kidneys, dilutes the blood, &c. This disorder very soon weakens the body, and induces a consumption. It is difficult to cure, but may be mitigated by strengthening diet and astringent medicines, such as may be found recommended under the article *Diabetes*, or excessive discharge of urine.

OF THE PERSPIRATION.

Insensible perspiration is generally reckoned the greatest of all the discharges from the human body. It is of so great importance to health, that few diseases attack us while it goes properly on; but when it is obstructed, the whole frame is soon disordered. This discharge, however, being less perceptible than any of the rest, is consequently less noticed. Hence it is, that acute fevers, rheumatisms, agues, &c. often proceed from obstructed perspiration, before we are aware of its having taken place.

On examining patients, we find most of them impute their diseases either to violent colds which they had caught, or to slight ones which had been neglected. For this reason, instead of a critical inquiry into the nature of the perspiration, its difference in different seasons, climates, constitutions, &c. we shall endeavour to point out the causes which most commonly obstruct it, and to shew how far they may either be avoided, or have their influence counteracted by timely care. The want of due attention to these, costs Britain annually some thousands of useful lives.

CHANGES IN THE ATMOSPHERE.

One of the most common causes of obstructed perspiration, in this country, is the changeableness of the weather. There is no country where such changes happen more frequently than in Great Britain. With

us, the degrees of heat and cold are not only very different in the different seasons of the year, but often change almost from one extreme to another in a few days, and sometimes even in the course of one day. That such changes must affect the state of the perspiration, is obvious to every person.

The best method of fortifying the body against the changes of the weather, is to be abroad every day. Those who keep most within doors are most liable to catch cold. Such persons generally render themselves so delicate as to feel even the slightest changes in the atmosphere; and by their pains, coughs, and oppressions of the breast, &c. they become a kind of living barometers.

WET CLOTHES.

Wet clothes not only by their coldness obstruct the perspiration, but their moisture, by being absorbed, or taken up into the body, greatly increases the danger. The most robust constitution is not proof against the danger arising from wet clothes; they daily occasion fevers, rheumatisms, and other fatal disorders, even in the young and healthy.

It is impossible for people who go frequently abroad to avoid sometimes being wet. But the danger might generally be lessened, if not wholly prevented, by changing their clothes soon: when this cannot be done, they should keep in motion till they be dry. So far are many from taking this precaution, that they often sit or lie down in the fields with their clothes wet, and frequently sleep even whole nights in this condition. The frequent instances which we have of the fatal effects of this conduct, ought certainly to deter all from being guilty of it.

WET FEET.

Even wet feet often occasion fatal diseases. The colic, inflammations of the breast and of the bowels, the iliac passion, cholera morbus, &c. are often occasioned

by wet feet. Habit will, no doubt, render it less dangerous; but it ought, as far as possible, to be avoided. The delicate, and those who have not been accustomed to have their clothes or feet wet, should be particularly careful in this respect.

NIGHT AIR.

The perspiration is often obstructed by night air; even in summer, such air ought to be avoided. The dews, which fall plentifully after the hottest day, make the night more dangerous than when the weather is cool. Hence, in warm countries, the evening dews are more hurtful than where the climate is more temperate.

It is very agreeable after a warm day to be abroad in a cool evening; but this is a pleasure to be avoided by all who value their health. The effects of evening dews are gradual indeed, and almost imperceptible; but they are not the less to be dreaded; we would therefore advise travellers, labourers, and all who are much heated by day, carefully to avoid them. When the perspiration has been great, these become dangerous in proportion. By not attending to this, in flat marshy countries, where the exhalation and dews are copious, labourers are often seized with intermitting fevers, quinsies, and other dangerous diseases.

DAMP BEDS.

Beds become damp, either from their not being used, standing in damp houses, or in rooms without fire. Scarcely any thing is more to be dreaded by travellers than damp beds, which are very common in all places where fuel is scarce. When a traveller, cold and wet, arrives at an inn, he may, by means of a good fire, warm diluting liquor, and a dry bed, have the perspiration restored; but if he be put into a cold room, and laid in a damp bed, it will be more obstructed, and the worst consequences are likely to ensue. Travellers should avoid inns which are noted for damp beds, as

they would a house infected with the plague; as no man, however robust, is proof against the danger arising from them.

But inns are not the only places where damp beds are to be met with. Beds kept in private families for the reception of strangers are often equally dangerous. All kinds of linen and bedding, when not frequently used, become damp. How then is it possible that beds, which are not slept in above two or three times a year, should be safe? It is very common to hear people complain of having caught cold by changing their bed: the reason is obvious; were they careful never to sleep in a bed but what was frequently used, they would seldom find any ill consequences from a change.

The being laid in a bed which is kept on purpose for strangers, is much to be dreaded. That ill-judged piece of complaisance becomes a real injury. All the bad consequences from this quarter might easily be prevented in private families, by causing their servants to sleep in the spare beds, and resign them to strangers when they come. In inns, where the beds are used almost every night, nothing else is necessary than to keep the rooms well seasoned by frequent fires, and the linen dry.

That baneful custom, said to be practised in many inns, of damping sheets, and pressing them, in order to save washing, and afterwards laying them on the beds, ought, when discovered, to be punished with the utmost severity. It is really a species of murder, and will often prove as fatal as poison or gun-shot. Indeed, no linen, especially if it has been washed in winter, ought to be used till it has been exposed for some time to the fire: nor is this operation less necessary for linen washed in summer, provided it has lain by for any length of time. This caution is the more needful, as gentlemen are often exceedingly attentive to what they eat or drink at an inn, yet pay no regard to a circumstance of much more importance. If a person suspects that his bed is damp, the simple precaution of taking off the sheets, and lying in the blan-

kets, with all or most of his clothes on, will, probably, prevent all the danger.

DAMP HOUSES.

Damp houses frequently produce the like ill consequences: for this reason, those who build should be careful to choose a dry situation. A house which stands on a damp marshy soil or deep clay, will never be thoroughly dry. All houses, unless where the ground is exceedingly dry, should have the first floor a little raised.

Servants, and others who are obliged to live in cellars, and sunk stories, seldom continue long in health; masters ought surely to pay some regard to the health of their servants, as well as to their own.

It is common for people, merely to avoid some trifling inconvenience, to hazard their lives, by inhabiting a house almost as soon as the masons, plasterers, &c. have done with it: such houses are not only dangerous from their dampness, but likewise from the smell of lime, paint, &c. The asthmas, consumptions, and other diseases of the lungs, so incident to people who work in these articles, are sufficient proofs of their being unwholesome.

Rooms are often rendered damp by an unseasonable piece of cleanliness; I mean the pernicious custom of washing them immediately before company is put into them. Most people catch cold, if they sit but a very short time in a room that has been lately washed; the delicate ought carefully to avoid such a situation, and even the robust are not always proof against its influence.*

SUDDEN TRANSITIONS FROM HEAT TO COLD.

The perspiration is commonly obstructed by sudden

* People imagine if a good fire be made in a room, after it has been washed, that there is no danger from sitting in it; but they must give me leave to say, that this increases the danger. The evaporation excited by the fire generates cold, and renders the damp more active.

transition from heat to cold. Colds are seldom caught unless when people have been too much heated. Heat rarefies the blood, quickens the circulation, and increases the perspiration; but when these are suddenly checked, the consequences must be bad. It is indeed impossible for labourers not to be too hot upon some occasions; but it is generally in their power to cool gradually, to put on their clothes when they leave off work, to make choice of a dry place to rest themselves in, and to avoid sleeping in the open fields. These easy rules, if duly observed, would often prevent fevers, and other fatal disorders.

It is very common for people, when hot, to drink freely of cold water, or small liquors. This conduct is extremely dangerous. Thirst indeed is hard to bear, and the inclination to gratify that habit frequently gets the better of reason, and makes men do what their judgment disapproves. Every peasant, however, knows, if his horse be permitted to drink his bellyful of cold water, after violent exercise, and be immediately put into the stable, or suffered to remain at rest, it will kill him. This they take the utmost care to prevent. It were well if they were equally attentive to their own safety.

Thirst may be quenched many ways, without swallowing large quantities of cold liquor. The fields afford variety of acid fruits and plants, the very chewing of which would abate thirst. Water kept in the mouth for some time, and spit out again, if frequently repeated, will have the same effect. If a bit of bread be eaten along with a few mouthfuls of water, it will both quench thirst more effectually, and make the danger less. When a person is extremely hot, a mouthful of brandy, or other spirits, if it can be obtained, ought to be preferred to any thing else. But if any one has been so foolish, when hot, as to drink freely of cold liquor, he ought to continue his exercise at least till what he drank be thoroughly warmed upon his stomach.

It would be tedious to enumerate all the bad effects which flow from drinking cold liquors when the body

is hot. Sometimes this has occasioned immediate death. Hoarseness, quinsies, and fevers of various kinds, are its common consequences. Neither is it safe, when warm, to eat freely of raw fruits, salads, or the like. These indeed have not so sudden an effect on the body as cold liquors, but they are notwithstanding dangerous, and ought to be avoided.

Sitting in a warm room, and drinking hot liquors, till the pores are quite open, and immediately going into the open air is extremely dangerous. Colds, coughs, and inflammations of the breast, are the usual effects of this conduct; yet it is very common for people, after they have drank warm liquors for several hours, to walk or ride a number of miles in the coldest night, or to ramble about in the streets.

People are very apt, when a room is hot, to throw open a window, and to sit near it. This is a dangerous practice. Any person had better sit without doors, than in such a situation, as the current of air is directed against one particular part of the body. Inflammatory fevers, and consumptions, have often been occasioned by sitting or standing, thinly clothed, near an open window. Nor is sleeping with open windows less to be dreaded. That ought never to be done, even in the hottest weather, unless the window is at a distance. I have known mechanics frequently contract fatal diseases by working stripped at an open window, and would advise all of them to beware of such a practice.

Few things expose people more to catch cold than keeping their houses too warm; such persons may be said to live in a sort of hot-house; they can hardly stir abroad to visit a neighbour, but at the hazard of their lives. Were there no other reason for keeping houses moderately cool, that alone is sufficient; but no house that is too hot can be wholesome; heat destroys the spring and elasticity of the air, and renders it less fit for expanding the lungs, and the other purposes of respiration. Hence it is, that consumptions and other diseases of the lungs prove so fatal to persons who work in forges, glass-houses, and the like.

The result of these observations is, that every one ought to avoid, with the utmost attention, all sudden transitions from heat to cold, and to keep the body in as uniform a temperature as possible; or, where that cannot be done, to take care to let it cool gradually.

People may imagine, that too strict an attention to these things would tend to render them delicate. So far, however, is this from being my design, that the very first rule proposed for preventing colds is, to harden the body, by inuring it daily to the open air.

The most rational and enlightened rules of medicine, instead of laying a disagreeable restraint on men, dictate only the means by which any reasonable person would naturally be directed, and point out more rational and certain maxims for enjoyment and gratification than can be attained by the votary of Fashion or Bacchanalian joys.

Of the Knowledge and Cure of Diseases.

THE curing of diseases does not depend so much upon scientific principles as many imagine. It is chiefly the result of experience and observation. By attending the sick, and carefully observing the various occurrences in diseases, a great degree of accuracy may be acquired, both in distinguishing their symptoms, and in the application of medicines. Hence sensible nurses, and other persons who wait upon the sick, often foresee a disease sooner than those who have been bred to physic. We do not, however, mean to insinuate that a medical education is of no use; it is doubtless of the greatest importance, but it never can supply the place of observation and experience.

Every disease may be considered as an assemblage of symptoms, and must be distinguished by those which are most obvious and permanent. Instead, therefore, of giving a classical arrangement of diseases, according to the systematic method, it will be more suitable, in a performance of this nature, to give a full and accurate description of each particular disease as it occurs; and where any of the symptoms of one disease have a near resemblance to those of another, to take notice of that circumstance, and at the same time to point out the peculiar or characteristic symptoms by which it may be distinguished. By a due attention to these, the investigation of diseases will be found to be a less difficult matter than most people would at first be ready to imagine.

A proper attention to the patient's age, sex, temper of mind, constitution and manner of life, will likewise greatly assist both the investigation and treatment of diseases.

In childhood, the fibres are lax and soft, the nerves extremely irritable, and the fluids thin; whereas, in old age, the fibres are rigid, the nerves become almost insensible, and many of the vessels impervious. These

and other peculiarities render the diseases of the young and aged very different, and of course they must require a different method of treatment.

Females are liable to many diseases which do not afflict the other sex; besides, the nervous system being more irritable in them than in men, their diseases require to be treated with greater caution. They are less able to bear large evacuations; and all stimulating medicines ought to be administered to them with a sparing hand.

Particular constitutions not only dispose persons to peculiar diseases, but likewise render it necessary to treat these diseases in a peculiar manner. A delicate person, for example, with weak nerves, who lives mostly within doors, must not be treated, under any disease, precisely in the same manner as one who is hard and robust, and who is much exposed to the open air.

The temper of mind ought to be carefully attended to in diseases. Fear, anxiety, and a fretful temper, both occasion and aggravate diseases. In vain do we apply medicines to the body, to remove maladies which proceed from the mind. When *it* is affected, the best medicine is, to soothe the passions, to divert the mind from anxious thought, and to keep the patient as easy and cheerful as possible.

Attention ought, likewise, to be paid to the climate or place where the patient lives, the air he breathes, his diet, &c. Such as live in low marshy situations are subject to many diseases which are unknown to the inhabitants of high countries. Those who breathe the impure air of cities have many maladies to which the more happy rustics are entire strangers. Persons who feed grossly, and indulge in strong liquors, are liable to diseases which do not affect the temperate and abstemious, &c.

It has already been observed, that the different occupations and situations in life dispose men to peculiar diseases; it is, therefore, necessary to inquire into the patient's occupation, manner of life, &c. This will not only assist us in finding out the disease, but will like-

wise direct us in the treatment of it. It would be very imprudent to treat the laborious and the sedentary precisely in the same manner, even supposing them to labour under the same disease.

It will likewise be proper to inquire, whether the disease be constitutional or accidental; whether it has been of long or short duration; whether it proceeds from any great or sudden alteration in the diet, manner of life, &c. The state of the patient's body, and of the other evacuations, ought always to be inquired into; and, likewise, whether he can with ease perform all the vital and animal functions, as breathing, digestion, &c.

Lastly, it will be proper to inquire into the diseases the patient has been formerly liable to, and what medicines were most beneficial to him; if he has a strong aversion to any particular drug, &c.

As many of the indications of cure may be answered by diet alone, it is always the first thing to be attended to in the treatment of diseases. Those who know no better, imagine that every thing that goes by the name of a medicine, possesses some wonderful power or secret charm; and think, if the patient swallows enough of drugs, that he must do well. This mistake has many ill consequences; it makes people trust in drugs, and neglect their own endeavours; besides, it discourages all attempts to relieve the sick, where medicines cannot be obtained.

Medicines are no doubt useful in their places, and, when administered with prudence, may do much good; but, when they are put in place of every thing else, or administered at random, which is not seldom the case, they must do mischief. We would, therefore, wish to call the attention of mankind from the pursuits of secret medicines to such things as they are acquainted with. The proper regulation of these may often do much good, and there is little danger of their ever doing harm.

Every disease weakens the digestive powers. The diet ought, therefore, in all diseases, to be light, and of easy digestion. It would be as prudent for a person

with a broken leg to attempt to walk, as for one in a fever to eat the same kind of food, and in the same quantity, as when he was in perfect health. Even abstinence alone will often cure a fever, especially when it has been occasioned by excess in eating or drinking.

In all fevers attended with inflammation, as pleurisies, peripneumonies, &c. thin gruels, wheys, watery infusions of mucilaginous plants, roots, &c. are not only proper for the patient's food, but they are likewise the best medicines which can be administered.

In fevers of a slow, nervous, or putrid kind, where there are no symptoms of inflammation, and where the patient must be supported with cordials, that intention can always be more effectually answered by nourishing diet and generous wines, than by any medicines yet known.

Nor is the proper attention to diet of less importance in chronic than in acute diseases. Persons afflicted with low spirits, wind, weak nerves, and other hypochondriacal affections, generally find more benefit from the use of solid food and generous liquors, than from all the cordial and carminative medicines which can be administered to them.

The scurvy, that most obstinate malady, will sooner yield to a proper vegetable diet than to all the boasted antiscorbutic remedies of the shop.

In consumptions, when the humours are vitiated, and the stomach so much weakened as to be unable to digest the solid fibres of animals, or even to assimilate the juices of vegetables, a diet consisting chiefly of milk, will not only support the patient, but will often cure the disease after every other medicine has failed.

Nor is an attention to other things of less importance than to diet. The strange infatuation which has long induced people to shut up the sick from all communication with the external air, has done great mischief. Not only in fevers, but in many other diseases, the patient will receive more benefit from having the fresh air prudently admitted into his chamber, than from all the medicines which can be given him.

Exercise may likewise, in many cases, be considered as a medicine. Sailing or riding on horseback, for example, will be of more service in the cure of consumptions, glandular obstructions, &c. than any medicine yet known. In diseases which proceed from a relaxed state of the solids, the cold bath, and other parts of the gymnastic regimen, will be found equally beneficial.

Few things are of greater importance in the cure of diseases than cleanliness. When a patient is suffered to lie in dirty clothes, whatever perspires from his body is again resorbed, or taken up into it, which serves to nourish the disease, and increase the danger. Many diseases may be cured by cleanliness alone; most of them may be mitigated by it; and in all of them it is highly necessary both for the patient and those who attend him.

Many other observations, were it necessary, might be adduced, to prove the importance of a proper regimen in diseases. Regimen will often cure diseases without medicine, but medicine will seldom succeed where a proper regimen is neglected; for this reason, in the treatment of diseases, we have always given the first place to regimen. Those who are ignorant of medicine confine themselves to it only. For others, who have more knowledge, we have recommended some of the most simple and approved forms of medicine in every disease. These, however, are never to be administered but by people of better understanding, nor even by them without the greatest precaution.

It has been objected to this book, that it would be the cause of ignorant persons tampering with their health, &c. exercising a dangerous and fatal sort of domestic quackery. Such objection, however, can only proceed from ignorance of its contents, or a desire to mislead. Instead of encouraging the use of medicine, it will, to a man of common understanding, exhibit a caution against the dangerous practice of recurring, on every occasion, to the apothecary's shop, or using even the most simple remedy without due attention.

It has rather been my wish to explode as much as possible the use of drugs, and recommend, instead of them, a due regard to prevent disorders, by pure air, moderate exercise, temperate and wholesome diet, cleanliness, and the control of the passions. In cases of actual disease, I would recommend to no person to take medicine without the best advice, but even there to confine himself to regimen. The remedies I have recommended are safe, and will, I trust, be found as effectual and salutary as if they had been written in the jargon of apothecaries' Latin, accompanied with all their barbarous hieroglyphics.

Of Fevers in general.

As more than one half of mankind is said to perish by fevers, it is of importance to be acquainted with their causes. The most general causes of fevers are, *infection, errors in diet, unwholesome air, violent emotions of the mind, excess or suppression of usual evacuations, external or internal injuries, and extreme degrees of heat and cold.* As most of these have already been treated at considerable length, and their effects shewn, we shall not now resume the consideration of them, but shall only recommend it to all, as they would wish to avoid fevers and other fatal diseases, to pay the most punctual attention to these articles.

Fevers are not only the most frequent of all diseases, but they are likewise the most complex. In the most simple species of fever there is always a combination of several different symptoms. The distinguishing symptoms of fever are, increased heat, frequency of pulse, loss of appetite, general debility, pain in the head, and a difficulty of performing some of the vital or animal functions.

The other symptoms usually attendant on fevers, are, nausea, thirst, anxiety, delirium, weariness, wasting of the flesh, want of sleep, or the sleep disturbed, and not refreshing.

When the fever comes on gradually, the patient generally complains first of languor or listlessness, soreness of the flesh, or the bones, as the country people express it, heaviness of the head, loss of appetite, sickness, with clamminess of the mouth; after some time come on excessive heat, violent thirst, restlessness, &c.

When the fever attacks suddenly, it always begins with an uneasy sensation of excessive cold, accompanied with debility, and loss of appetite; frequently the cold is attended with shiverings, oppressions about the heart, and sickness at the stomach, or vomiting.

Fevers are divided into continual, remitting, intermitting, and such as are attended with cutaneous eruption or topical inflammation, as the small-pox, erysipelas, &c. By a continual fever is meant that which never leaves the patient during the whole course of the disease, or which shews no remarkable increase or abatement in the symptoms. This kind of fever is likewise divided into acute, slow, and malignant. The fever is called acute when its progress is quick, and the symptoms violent; but when these are more gentle, it is generally denominated slow. When livid or petechial spots shew a putrid state of the humours, the fever is called malignant, putrid, or petechial.

A remitting fever differs from a continual only in degree. It has frequent increases and decreases, or exacerbations and remissions, but never wholly leaves the patient during the course of the disease. Intermitting fevers or agues are those which, during the time that the patient may be said to be ill, have evident intervals or remissions of the symptoms.

As a fever is only an effort of Nature to free herself from an offending cause, it is the business of those who have the care of the sick to observe with diligence which way Nature points, and to endeavour to assist her operations. Our bodies are so framed, as to have a constant tendency to expel or throw off whatever is injurious to health. This is generally done by urine, sweat, stool, expectoration, vomit, or some other evacuation.

There is reason to believe, if the efforts of Nature,

at the beginning of a fever, were duly attended to and promoted, it would seldom continue long; but, when her attempts are either neglected or counteracted, it is no wonder if the disease proves fatal. There are daily instances of persons who, after catching cold, have all the symptoms of a beginning fever; but, by keeping warm, drinking diluting liquors, bathing their feet in warm water, &c. the symptoms in a few hours disappear, and the danger is prevented. When fevers of a putrid kind threaten, the best method of obviating their effects is by repeated vomits.

Our design is not to enter into a critical inquiry into the nature and immediate cause of fevers, but to mark their most obvious symptoms, and to point out the proper treatment of the patient with respect to his diet, drink, air, &c. in the different stages of the disease. In these articles, the inclinations of the patient will in a great measure direct our conduct.

Almost every person in a fever complains of great thirst, and calls out for drink, especially of a cooling nature. This at once points out the use of water, and other cooling liquors. What is so likely to abate the heat, attenuate the humours, remove spasms and obstructions, promote perspiration, increase the quantity of urine, and, in short, produce every salutary effect in an ardent inflammatory fever, as drinking plentifully of water, thin gruel, or any other weak liquor, of which water is the basis? The necessity of diluting liquors is pointed out by the dry tongue, the parched skin, and the burning heat, as well as by the unquenchable thirst of the patient.

Many cooling liquors, which are extremely grateful to patients in a fever, may be prepared from fruits, as decoctions of tamarinds, apple-tea, orange-whey, and the like. Mucilaginous liquors might also be prepared from marshmallow-roots, linseed, lime-tree buds, and other mild vegetables. These liquors, especially when acidulated, are highly agreeable to the patient, and should never be denied him.

At the beginning of a fever, the patient generally complains of great lassitude or weariness, and has no

inclination to move. This evidently shews the propriety of keeping him easy, and, if possible, in bed. Lying in bed relaxes the spasms, abates the violence of the circulation, and gives Nature an opportunity of exerting all her force to overcome the disease. The bed alone would often remove a fever at the beginning; but when the patient struggles with the disease, instead of driving it off, he only fixes it the deeper, and renders it more dangerous. This observation is too often verified in travellers, who happen when on a journey to be seized with a fever. Their anxiety to get home induces them to travel with a fever upon them; which conduct seldom fails to render it fatal.

In fevers, the mind as well as the body should be kept easy. Company is seldom agreeable to the sick. Indeed, every thing that disturbs the imagination increases the disease; for which reason, every person in a fever ought to be kept perfectly quiet, and neither allowed to see nor hear any thing that may in the least affect or discompose his mind.

Though the patient in a fever has the greatest inclination for drink, yet he seldom has any appetite for solid food: hence the impropriety of urging him to take victuals is evident. Much solid food in a fever is every way hurtful. It oppresses nature, and, instead of nourishing the patient, serves only to feed the disease. What food the patient takes should be in small quantity, light, and of easy digestion. It ought to be chiefly of the vegetable kind, as panada, roasted apples, gruels, and such like.

Poor people, when any of their family are taken ill, run directly to their rich neighbours for cordials, and pour wine, spirits, &c. into the patient, who perhaps never had been accustomed to taste such liquors, when in health. If there be any degree of fever, this conduct must increase it; and, if there be none, this is the ready way to raise one. Stuffing the patient with sweetmeats, and other delicacies, is likewise very pernicious. These are always harder to digest than common food, and cannot fail to hurt the stomach.

Nothing is more desired by a patient in a fever, than

fresh air. It not only removes his anxiety, but cools the blood, revives the spirits, and proves every way beneficial. Many patients are in a manner stifled to death, in fevers, for want of fresh air; yet such is the unaccountable infatuation of most people, that the moment they think a person in a fever, they imagine he should be kept in a close chamber, into which not one particle of fresh air must be admitted. Instead of this, there ought to be a constant stream of fresh air into a sick person's chamber, so as to keep it moderately cool. Indeed, its degree of warmth ought never to be greater than is agreeable to one in perfect health.

Nothing spoils the air of a sick person's chamber, or hurts the patient, more than a number of people breathing in it. When the blood is inflamed, or the humours in a putrid state, air that has been breathed repeatedly will greatly increase the disease. Such air not only loses its spring, and becomes unfit for the purpose of respiration, but acquires a noxious quality, which renders it in a manner poisonous to the sick.

In fevers, when the patient's spirits are low and depressed, he is not only to be supported with cordials, but every method should be taken to cheer and comfort his mind. Many, from a mistaken zeal, when they think a person in danger, instead of solacing his mind with the hopes and consolations of religion, frighten him with the views of hell and damnation. It would be unsuitable here to dwell upon the impropriety and dangerous consequences of this conduct; it often hurts the body, and, there is reason to believe, seldom benefits the soul.

Among common people, the very name of a fever generally suggests the necessity of bleeding. This notion seems to have taken its rise from most fevers in this country having been formerly of an inflammatory nature; but true inflammatory fevers are now seldom to be met with. Sedentary occupations, and a different manner of living, have so changed the state of diseases in Britain, that there is now hardly one fever in ten where the lancet is necessary. In most low, nervous, and putrid fevers, which are now so common,

bleeding is really hurtful, as it weakens the patient, sinks his spirits, &c. We would recommend this general rule, never to bleed at the beginning of a fever, unless there be evident signs of inflammation. Bleeding is an excellent medicine, when necessary, but should never be wantonly performed.

It is likewise a common notion, that sweating is always necessary in the beginning of a fever. When the fever proceeds from an obstructed perspiration, this notion is not ill founded. If the patient only lie in bed, bathe his feet and legs in warm water, and drink freely of warm water-gruel, or any other weak diluting liquor, he will seldom fail to perspire freely. The warmth of the bed and the diluting drink will relax the universal spasm, which generally affects the skin at the beginning of a fever; it will open the pores, and promote the perspiration, by means of which the fever may often be carried off. But, instead of this, the common practice is, to heap clothes upon the patient, and to give him things of a hot nature, as spirits, spiceries, &c. which fire his blood, increase the spasms, and render the disease more dangerous.

In all fevers, a proper attention should be paid to the patient's longings. These are the calls of Nature, and often point out what may be of real use. Patients are not, indeed, to be indulged in every thing that the sickly appetite may crave; but it is generally right to let them have a little of what they eagerly desire, though it may not seem altogether proper. What the patient longs for, his stomach will generally digest, and such things have sometimes a very happy effect.

When a patient is recovering from a fever, great care is necessary to prevent a relapse. Many persons, by too soon imagining themselves well, have lost their lives, or contracted other diseases of an obstinate nature. As the body, after a fever, is weak and delicate, it is necessary to guard against catching cold. Moderate exercise in the open air will be of use, but great fatigue is by all means to be avoided; agreeable company will also have a good effect. The diet must be light, but nourishing. It should be taken frequently

but in small quantities. It is dangerous, at such a time, to eat as much as the stomach may crave.

Nothing can be more absurd than a general remedy in cases of fevers, of which there are such a variety of sorts, attended with such a variety of symptoms. Yet, for half a century, a powder, said to possess great virtue in their cure, has been swallowed in great quantities here and throughout half the world, in all cases and situations. Bleeding used formerly to be equally prevalent. In short, fashion reigns in physic with as arbitrary a sway as in dress, or any of the most indifferent things.

This powder is not confined to the use of fevers, but, like other quack-medicines, cures every complaint; and there are many examples, not only of its immediate fatal consequences, when used improperly, but still more when its constant repetition has destroyed the constitution, or occasioned the loss of the extremities.

A fever requires to be attentively watched in its progress, in order to enable the most skilful physician to prescribe the regimen as well as medicines, as the symptoms and changes occur. To speak, therefore, of a universal remedy in fevers, is the extreme of absurdity.

Of Intermitting Fevers, or Agues.

Intermitting fevers afford the best opportunity both of observing the nature of a fever, and also the effects of medicine. No person can be at a loss to distinguish an intermitting fever from any other, and the proper medicine for it is now almost universally known.

The several kinds of intermitting fevers take their names from the period in which the fit returns, as quotidian, tertian, quartan, &c.

Causes.—Agues are occasioned by effluvia from putrid stagnating water. This is evident from their abounding in rainy seasons, and being most frequent in

countries where the soil is marshy; as in Holland, the Fens of Cambridgeshire, the Hundreds of Essex, &c. This disease may also be occasioned by eating too much stone-fruit, by a poor watery diet, damp houses, evening dews, lying upon the damp ground, watching, fatigue, depressing passions, and the like. When the inhabitants of a high country remove to a low one, they are generally seized with intermitting fevers, and to such the disease is apt to prove fatal. In a word, whatever relaxes the solids, diminishes the perspiration, or obstructs the circulation in the capillary or small vessels, disposes the body to agues.

Symptoms.—An intermitting fever generally begins with a pain of the head and loins, weariness of the limbs, coldness of the extremities, stretching, yawning, with sometimes great sickness and vomiting; to which succeed shivering and violent shaking. Afterward, the skin becomes moist, and a profuse sweat breaks out, which generally terminates the fit or paroxysm. Sometimes, indeed, the disease comes on suddenly, when the person thinks himself in perfect health; but it is more commonly preceded by listlessness, loss of appetite; and the symptoms above mentioned.

Regimen.—While the fit continues, the patient ought to drink freely of water-gruel, orange-whey, weak camomile-tea; or, if his spirits be low, small wine-whey, sharpened with the juice of lemon. All his drink should be warm, as that will assist in bringing on the sweat, and consequently shorten the paroxysm.

Between the paroxysms, the patient must be supported with food that is nourishing, but light and easy of digestion, as veal or chicken broths, sago gruel with a little wine, light puddings, and such like. His drink may be small negus, acidulated with the juice of lemons or oranges, and sometimes a little weak punch. He may likewise drink infusions of bitter herbs, as camomile, wormwood, or water trefoil, and may now and then take a glass of small wine, in which gentian root, centaury, or some other bitter, has been infused.

As the chief intentions of cure, in an ague, are to

brace the solids, and promote perspiration, the patient ought to take as much exercise between the fits as he can bear. If he be able to go abroad, riding on horseback, or in a carriage, will be of great service. But, if he cannot bear that kind of exercise, he ought to take such as his strength will permit. Nothing tends more to prolong an intermitting fever, than indulging a lazy indolent disposition.

Intermitting fevers, under a proper regimen, will often go off without medicine; and, when the disease is mild, in an open dry country, there is seldom any danger from allowing it to take its course; but when the patient's strength seems to decline, or the paroxysms are so violent that his life is in danger, medicine ought immediately to be administered. This, however, should never be done till the disease be properly formed, that is to say, till the patient has had several fits of shaking and sweating.

Medicine.—The first thing to be done in the cure of an intermitting fever is, to cleanse the stomach and bowels. This not only renders the application of other medicines more safe, but likewise more efficacious. In this disease, the stomach is generally loaded with cold viscid phlegm, and frequently great quantities of bile are discharged by vomit; which plainly points out the necessity of such evacuations. Vomits are therefore to be administered before the patient takes any other medicine. A dose of ipecacuanha will generally answer this purpose very well. A scruple of the powder, with half a grain of tartar emetic, will be sufficient for an adult, and for a younger person the dose must be less in proportion. After the vomit begins to operate, the patient ought to drink weak camomile-tea. The vomit should be taken two or three hours before the return of the fit, and may be repeated at the distance of two or three days. Vomits not only cleanse the stomach, but increase the perspiration, and all the other secretions, which render them of such importance, that they often cure intermitting fevers, without the assistance of any other medicine.

The next morning, after taking an emetic, the following purgative will be very proper.

Rhubarb in powder one scruple, calomel two grains, made into a bolus with simple syrup. Take it fasting, and work it off with oatmeal gruel.

If the above ingredients cannot be easily obtained, take jalap in powder, one scruple, in a little mint water. This also may be worked off with gruel.

After proper evacuations, the patient may safely use the Peruvian bark, which may be taken in any way that is most agreeable to him. No preparation of the bark seems to answer better than the most simple form in which it can be given, *viz.* in powder.

Two ounces of the best Peruvian bark, finely powdered, may be divided into thirty-two doses. These may either be made into boluses, as they are used, with a little syrup of lemon, or mixed in a glass of red wine, a cup of camomile-tea, water-gruel, or any other drink that is more agreeable to the patient.

In an ague which returns every day, one of the above doses may be taken every two hours during the interval of the fits. By this method, the patient will be able to take five or six doses between each paroxysm. In a tertian or third day ague, it will be sufficient to take a dose every third hour, during the interval; and in a quartan, every fourth. For a young person, a small quantity of this medicine will be sufficient; and the dose must be adapted to the age, constitution, and violence of the symptoms.

The above quantity of bark will frequently cure an ague; the patient, however, ought not to leave off taking the medicine as soon as the paroxysms are stopped, but should continue to use it till there is reason to believe the disease is entirely overcome. Most of the failures in the cure of this disease are owing to patients not continuing to use the medicines long enough. They are generally directed to take it till the fits are stopped, then to leave it off, and begin again at some distance of time: by which means the disease gathers strength, and often returns with as much violence as before. A relapse may always be

prevented by the patient's continuing to take doses of the medicine for some time after the symptoms disappear. This is both the most safe and effectual method of cure.

Two drachms of quassia wood, half an ounce of orange peel, and one drachm of coriander seed bruised, with a pint of boiling water poured on them, will, after standing two hours, make an excellent infusion. A wine-glassful of it may be taken thrice a day, between the times of taking the bark.

Those who cannot swallow the bark in substance, may take it in decoction or infusion. An ounce of bark in powder may be infused in a bottle of white wine for four or five days, frequently shaking the bottle; afterwards let the powder subside, and pour off the clear liquor. A wine-glass may be drank three or four times a day, or oftener, as there is occasion. If a decoction be more agreeable, an ounce of the bark, and two drachms of snake-root bruised, with one drachm of sub-carbonate of potass, may be boiled in a quart of water, into an English pint. To the strained liquor may be added an equal quantity of red wine, and a glass of it taken frequently.

In obstinate agues, the bark will be found much more efficacious when assisted by brandy or other warm cordials, than if taken alone; this I have had frequently occasion to observe in a country where intermittent fevers were endemical. The bark seldom succeeded, unless assisted by snake-root, ginger, canella alba, or some other warm aromatics. When the fits are very frequent and violent, in which case the fever often approaches towards an inflammatory nature, it will be safer to keep out the aromatics, and to add sub-carbonate of potass in their stead; but in an obstinate tertian or quartan, in the end of autumn, or beginning of winter, warm and cordial medicines are absolutely necessary.

As autumnal and winter agues generally prove much more obstinate than those which attack the patient in spring or summer, it will be necessary to continue the use of medicines longer in the former than in the lat-

ter. A person who is seized with an intermitting fever in the beginning of winter, ought frequently, if the season prove rainy, to take a little medicine, although the disease may seem to be cured, to prevent a relapse, till the return of the warm season; he ought likewise to take care not to be too much abroad in wet weather, especially in cold easterly winds.

When agues are not properly cured, they often degenerate into obstinate chronical diseases, as the dropsy, jaundice, &c. For this reason, all possible care should be taken to have them radically cured, before the constitution has been too much weakened.

Though nothing is more rational than the method of treating intermitting fevers, yet, by some strange infatuation, more charms and whimsical remedies are daily used for removing this than any other disease. There is hardly an old woman that is not in possession of a nostrum for stopping an ague; and it is amazing with what readiness their pretensions are believed. Those in distress easily grasp at any thing that promises sudden relief; but the shortest way is not always the best in the treatment of diseases. The only method to obtain a safe and lasting cure, is to assist Nature in removing the cause of the disorder.

Some indeed try bold, or rather fool-hardy experiments, to cure agues; as drinking great quantities of strong liquors, jumping into a river, &c. These may sometimes have the desired effect, but must always be attended with danger. When there is any degree of inflammation, or the least tendency to it, such experiments may prove fatal.

Where agues are endemical, even children are often afflicted with that disease. Such patients are very difficult to cure, as they can seldom be prevailed upon to take the bark, or any other disagreeable medicine. One method of rendering this medicine more palatable is, to make it into a mixture with distilled waters and syrup, and afterwards to give it an agreeable sharpness with the elixir or spirit of vitriol. This both improves the medicine, and takes off the nauseous taste. In cases where the bark cannot be admi-

nistered, the *saline mixture* may be given to advantage to children.

Wine-whey is a very proper drink for a child in an ague; to half an English pint of which may be put a tea-spoonful of the liquor of hartshorn. Exercise is likewise of considerable service; and when the disease proves obstinate, the child ought, if possible, to be removed to a warm dry air. The food ought to be nourishing, and sometimes a little generous wine should be allowed.

To children, and such as cannot swallow the bark, or when the stomach will not bear it, it may be given by clyster. Half an ounce of the extract of bark, dissolved in four ounces of warm water, with the addition of half an ounce of sweet oil, and six or eight drops of laudanum, is the form recommended by Dr. Lind for an adult, and this to be repeated every fourth hour, or oftener, as the occasion shall require. For children, the quantity of extract and laudanum must be proportionably lessened. Children have been cured of agues by making them wear a waistcoat with powdered bark quilted between the folds of it, by bathing them frequently in a strong decoction of the bark, and by rubbing the spine with strong spirits; or with a mixture of equal parts of tincture of opium and the saponaceous liniment.

We have been the more full upon this disease, because it is very common, and because few patients in an ague apply to physicians, unless in extremities. There are, however, many cases in which the disease is very irregular, being complicated with other diseases, or attended with symptoms which are both very dangerous and very difficult to understand. All these we have purposely passed over, as they would only bewilder the generality of readers. When the disease is very irregular, or the symptoms dangerous, the patient ought immediately to apply to a physician, and strictly to follow his advice.

To prevent agues, people must endeavour to avoid their causes. These have already been pointed out; we shall, therefore, only add one preventive medicine,

which may be of use to such as are obliged to live in low marshy countries, or who are liable to frequent attacks of this disease.

Take an ounce of the best Peruvian bark, Virginian snake-root, and orange-peel, of each half an ounce; bruise them all together, and infuse for five or six days in a bottle of brandy, Holland gin, or any good spirit; afterward pour off the clear liquor, and take a table-spoonful of it twice or thrice a day. This indeed is recommending a dram; but the bitter ingredients, in a great measure, take off the ill effects of the spirit. Those who do not choose it in brandy, may infuse it in wine; and such as can bring themselves to chew the bark, will find that method succeed very well. Gentian root, quassia, or ginger, may also be chewed by turns, for the same purpose. All bitters seem to be antidotes to agues, especially those that are warm and astringent.

Nothing is more essential to the cure of agues than a frequent change of air.

There is, perhaps, no disease which so many pretend to cure as this. Many are the specifics which the possessors have received, handed down from father to son, with the most imposing statements of cures performed by them, after every fruitless endeavour of the faculty. The ignorant persons who relate these cures are not capable of judging how far they were the consequence of the medicine's operation; they only know that the fits ceased after taking it. Still less could they judge whether the medicine, in stopping the fits, did not introduce into the system vitiated humours, still more dangerous to the constitution, as the seeds of some other disease. In no case ought such evidence to have weight in medical experiments. Without intending it, they are most apt to give a false statement, or to assert such absurdities as can never deserve credit.

Of an Acute Continual Fever.

This fever is denominated acute, ardent, or inflammatory. It most commonly attacks the young, or persons about the prime and vigour of life, especially such as live high, abound with blood, and whose fibres are strong and elastic. It seizes people at all seasons of the year, but is most frequent in the spring and beginning of summer.

Causes.—An ardent fever may be occasioned by any thing that overheats the body, or produces plethora, as violent exercise, sleeping in the sun, drinking strong liquors, eating spiceries, a full diet with little exercise, &c. It may likewise be occasioned by whatever obstructs the perspiration, as lying on the damp ground, drinking cold liquor when the body is hot, night watching, or the like.

Symptoms.—A rigour or chilliness generally ushers in this fever, which is soon succeeded by great heat, a frequent and full pulse, pain of the head, dry skin, redness of the eyes, a florid countenance, pains in the back, loins, &c. To these succeed difficulty of breathing, sickness, with an inclination to vomit; the patient complains of great thirst, has no appetite for solid food, is restless, and in a few days after the attack his tongue generally appears black and rough.

A delirium, excessive restlessness, great oppression of the breast, with laborious respiration, starting of the tendons, hiccup, cold clammy sweats, and an involuntary discharge of urine, are very dangerous symptoms.

As this disease is always attended with danger, the best medical assistance ought to be obtained as soon as possible. A physician may be of use at the beginning, but his skill is often of no avail afterwards. Nothing can be more unaccountable than the conduct of those who have it in their power at the beginning of a fever to procure the best medical assistance, yet put it off till things come to an extremity. When the disease, by delay or wrong treatment, has become incurable, and has exhausted the strength of the pa-

tient, it is in vain to hope for relief from medicine. Physicians may indeed assist Nature; but their attempts must ever prove fruitless, when she is no longer able to co-operate with their endeavours.

Regimen.—From the symptoms of this disease, it is evident, that the blood and other humours require to be diluted; that the perspiration, urine, saliva, and all the other secretions, are in too small quantity; that the vessels are rigid, and the heat of the whole body too great: all these clearly point out the necessity of a regimen calculated to dilute the blood, correct the acrimony of the humours, allay the excessive heat, remove the spasmodic stricture of the vessels, and promote the secretions.

These important purposes may be greatly promoted by drinking plentifully of diluting liquors; as water-gruel, or oatmeal-tea, clear whey, barley-water, balm-tea, apple-tea, &c. These may be sharpened with juice of orange, jelly of currants, raspberries, and such like; orange-whey is also an excellent cooling drink. It is made by boiling among milk and water a bitter orange sliced, till the curd separates. If no orange can be had, a lemon, a little cream of tartar, or a few spoonfuls of vinegar, will have the same effect. Two or three spoonfuls of white wine may occasionally be added to the liquor when boiling, yet this should be done but seldom.

If the patient be costive, an ounce of tamarinds, with two ounces of stoned raisins of the sun, and a couple of figs, may be boiled in three English pints of water to a quart. This makes a very pleasant drink, and may be used at discretion. The common pectoral decoction is likewise a very proper drink, in this disease. A tea-cupful of it may be taken every two hours, or oftener, if the patient's heat and thirst be very great.

The above liquids must all be drank a little warm, They may be used in smaller quantities at the beginning of a fever, but more freely afterwards, in order to assist in carrying off the disease by promoting the different excretions. We have mentioned a variety of

drinks, that the patient may have it in his power to choose those which are most agreeable, and that when tired of one, he may have recourse to another.

The patient's diet must be very spare and light. All sorts of flesh-meats, and even chicken broths, are to be avoided. He may be allowed groat-gruel, panada, or light bread boiled in water; to which may be added a few grains of common salt, and a little sugar, which will render it more palatable. He may eat roasted apples with a little sugar, toasted bread with jelly of currants, boiled prunes, &c.

It will greatly relieve the patient, especially in an hot season, to have fresh air frequently let into his chamber. This, however, must always be done in such a manner as not to endanger his catching cold.

It is too common in fevers to load the patient with bed-clothes, under the pretence of making him sweat, or defending him from the cold. This custom has many ill effects. It increases the heat of the body, fatigues the patient, and retards instead of promoting the perspiration.

Sitting upright in bed, if the patient is able to bear it, will often have a good effect. It relieves the head, by retarding the motion of the blood to the brain. But this posture ought never to be continued too long; and if the patient be inclined to sweat, it will be more safe to let him lie, only raising his head a little with pillows.

Sprinkling the chamber with vinegar, juice of lemon, or vinegar and rose-water, with a little nitre dissolved in it, will greatly refresh the patient. This ought to be done frequently, especially if the weather be hot.

The patient's mouth should be often washed with a mixture of water and honey, to which a little vinegar may be added, or with a decoction of figs in barley-water. His feet and hands ought likewise frequently to be bathed in lukewarm water, especially if the head be affected.

The patient should be kept as quiet and easy as possible. Company, noise, and every thing that disturbs the mind, is hurtful. Even too much light, or

any thing that affects the senses, ought to be avoided. His attendants should be as few as possible, and they ought not to be too often changed. His inclinations ought rather to be soothed than contradicted; even the hope of having what he craves, will often satisfy him as much as its reality.

MEDICINE.—Bleeding has been strongly recommended, at the commencement of an acute fever, and, in some very strong robust constitutions, it may be very proper; but the free and repeated use of the lancet, in this disease, is often followed with fatal effects. We would therefore advise a dose of emetic tartar, to be given on the first attack: this not only cleanses the stomach of bile, but promotes perspiration, which greatly relieves the patient from heat and restlessness. After the operation of the vomit, and a little rest from the exertion, the bowels should be opened by one of the following powders.

Rhubarb one scruple, cream of tartar half a drachm. Mix these together in a little mint tea. Or,

Compound powder of scammony fifteen grains, in a tea-cupful of senna-tea.

If the heat and fever be very great, a tea-spoonful of spirit of nitrous ether may be made into a draught, with an ounce of rose-water, one ounce of common water, and half an ounce of simple syrup, or a bit of loaf sugar. This draught may be given to the patient every three or four hours, while the fever is violent; afterwards once in five or six hours will be sufficient.

If the body be bound during the fever, a clyster of milk and water, with a little salt, and a spoonful of sweet oil or fresh butter in it, ought to be administered. Should this not have the desired effect, a tea-spoonful of magnesia alba, or cream of tartar, may be occasionally put into his drink. He may likewise eat tamarinds, boiled prunes, roasted apples, and the like.

If about the tenth, eleventh, or twelfth day, the pulse becomes more soft, the tongue moister, and the urine begins to let fall a reddish sediment, there is reason to expect a favourable issue to the disease. But

if, instead of these symptoms, the patient's spirits grow languid, his pulse sinks, and his breathing becomes difficult; with a stupor, trembling of the nerves, starting of the tendons, &c. there is reason to fear that the consequences will be fatal. In this case blistering plaisters must be applied to the head, ancles, inside of the legs or thighs, as there may be occasion; poultices of wheat-bread, mustard, and vinegar, may likewise be applied to the soles of the feet; and the patient must be supported with cordials, as strong wine-whey, negus, sago-gruel with wine in it, and such like.

A proper regimen is not only necessary during the fever, but likewise after the patient begins to recover. By neglecting this, many relapse, or fall into other diseases, and continue valetudinary through life. Though the body is weak after a fever, yet the diet for some time ought to be rather light than of too nourishing a nature. Too much food, drink, exercise, company, &c. are carefully to be avoided. The mind ought likewise to be kept easy, and the patient should not attempt to pursue study, or any business that requires intense thinking.

When the fever is entirely subdued, the strength of the system may be restored by the following mixture.

Take of essential salt of bark one drachm, dissolve it in half a pint of mint-water, and add spirit of nitrous ether three drachms. Three table-spoonfuls to be taken four times a day. If the salt of bark cannot be procured, half a pint of the decoction of bark may be substituted for it and the mint-water.

When the patient's strength is pretty well recovered, he ought to take some gentle laxative. An ounce of tamarinds and a drachm of senna may be boiled for a few minutes in an English pint of water, and one ounce of manna dissolved in the decoction; afterwards it may be strained, and a teacupful drank every hour till it operates. This dose may be repeated twice or thrice, five or six days intervening betwixt each dose.

Those who follow laborious employments ought not

to return too soon to their labour, after a fever, but should keep easy till their strength and spirits are sufficiently recruited.

The most dangerous thing on recovering from a fever is the indulgence in eating and drinking, in which the patient is too apt to exceed. The appetite is then unusually voracious, and requires the greatest self-command; else a relapse is most likely to ensue, as well as other still worse consequences, such as boils, ulcers, and settled swellings of the limbs. The diet ought to be light, principally of vegetables, not however without some animal food of easy digestion.

On the first appearance of fever, it is necessary to obtain the best medical advice. Many fall victims to their obstinacy in persisting to struggle against it, without even taking to their bed, which would in many cases stop an incipient fever; whereas the struggling to keep on their legs, inevitable increases its force. Others, in the first symptoms, employ hot and volatile sudorifics, smothering themselves up in bed, under a load of clothes, in a chamber where the air is excluded, in order to excite sweats. By these means the fever must certainly increase, whereby sweating, as well as every other evacuation will be prevented. Diluting liquors, while they quench the patient's thirst, and abate his pains, greatly promote perspiration.

Of the Pleurisy.

The true pleurisy is an inflammation of that membrane called the pleura, which lines the inside of the breast. It is distinguished into the moist and dry. In the former, the patient spits freely; in the latter, little or none at all. There is likewise a species of this disease, which is called the *spurious* or *bastard pleurisy*, in which the pain is more external, and chiefly affects the muscles between the ribs. The pleurisy prevails among labouring people, especially such as

work without doors, and are of a sanguine constitution. It is most frequent in the spring season.

Causes.—The pleurisy may be occasioned by whatever obstructs the perspiration; as cold northerly winds, drinking cold liquors when the body is hot, sleeping without doors on the damp ground, wet clothes, plunging the body into cold water, or exposing it to the cold air when covered with sweat, &c. It may likewise be occasioned by drinking strong liquors; by the stoppage of usual evacuations; as old ulcers, issues, sweating of the feet or hands, &c. the sudden striking in of any eruption, as the itch, the meazles, or the small-pox. Those who have been accustomed to bleed at a certain season of the year, are apt, if they neglect it, to be seized with a pleurisy. Keeping the body too warm by means of fire, clothes, &c. renders it more liable to this disease. A pleurisy may likewise be occasioned by violent exercise, as running, wrestling, leaping, or by supporting great weights, blows on the breast, &c. A bad conformation of the body renders persons more liable to this disease, as a narrow chest, a straitness of the arteries of the pleura, &c.

Symptoms.—This, like most other fevers, generally begins with chillness and shivering, which are followed by heat, thirst, and restlessness. To these succeed a violent pricking pain in one of the sides, under the ribs. Sometimes the pain extends towards the back-bone, sometimes towards the forepart of the breast, and at other times towards the shoulder-blades. The pain is generally more violent when the patient draws in his breath.

The pulse in this disease is commonly quick and hard, the urine high-coloured, and if blood be let, it is covered with a tough crust, or buffy coat. The patient's spittle is at first thin, but afterwards it becomes grosser, and is often streaked with blood.

Regimen.—Nature generally endeavours to carry off this disease by a critical discharge of blood from some part of the body, by expectoration, sweat, loose stools, thick urine, or the like. We ought, therefore

to second her intentions by lessening the force of the circulation, relaxing the vessels, diluting the humours, and promoting expectoration.

For these purposes, the diet, ought to be cool, slender, and diluting. The patient must avoid all food that is viscid, hard of digestion, or that affords much nourishment; as flesh, butter, cheese, eggs, milk, and also every thing that is of a heating nature. His drink may be whey, barley-water, or an infusion of pectoral and balsamic vegetables.

Barley-water, with a little honey or jelly of currants mixed with it, is likewise a very proper drink in this disease. It is made by boiling an ounce of pearl-barley in three English pints of water to two, which must afterwards be strained. A decoction of figs, raisins, barley, &c. is likewise very proper. These and other diluting liquors are not to be drank in large quantities at a time: but the patient ought to keep continually supping them, so as to render his mouth and throat always moist. All his food and drink should be taken a little warm.

The patient should be kept quiet, cool, and every way easy. His feet and hands ought daily to be bathed in lukewarm water; and he may sometime sit up in bed for a short space, on order to relieve his head.

Medicine.—Almost every person knows, when a fever is attended with a violent pain in the side, and a quick hard pulse, that bleeding is necessary. When these symptoms come on, the sooner this operation is performed the better; and the quantity at first must be pretty large, provided the patient be able to bear it. A large quantity of blood let at once, in the beginning of a pleurisy, has a much better effect than repeated small bleedings. A man may lose twelve or fourteen ounces of blood as soon as it is certainly known that he is seized with a pleurisy. For a younger person, or one of a delicate constitution, the quantity must be less.

If, after the first bleeding, the stitch, with the other violent symptoms, should still continue, it may be necessary at the distance of twelve or eighteen hours, to

take eight or nine ounces more. If the symptoms do not then abate, and the blood shews a strong buffy coat, a third or even a fourth bleeding may be requisite. If the pain of the side abate, the pulse become softer, or the patient begin to spit freely, bleeding ought not to be repeated. This operation is seldom necessary after the third or fourth day of the fever, and ought not then to be performed, unless in the most urgent circumstances.

The blood may be many ways attenuated without bleeding. There are likewise many things that may be done to ease the pain of the side without this operation; as fomenting, blistering, &c. Fomentations may be made by boiling a handful of the flowers of elder, camomile, nettles, and common mallows, or any other soft vegetables, in a proper quantity of water. The herbs may be put into a flannel-bag, and applied warm to the side, or flannels may be dipped into the decoction, afterwards wrung out, and applied to the part affected, with as much warmth as the patient can easily bear. As the cloths grow cool, they must be changed, and great care taken that the patient do not catch cold. A bladder may be filled with warm milk and water, and may be applied to the side, if the above method of fomenting be found inconvenient. Fomentations not only ease the pain, but relax the vessels, and prevent the stagnation of the blood and other humours. The side may likewise be frequently rubbed with a little volatile liniment.

Topical bleeding has often a very good effect in this disease. It may either be performed by applying a number of leeches to the part affected, or by cupping, which is both a more certain and expeditious method than the other.

Leaves of various plants might likewise be applied to the patient's side with advantage. I have often seen great benefit from young cabbage-leaves applied warm to the side in a pleurisy. These not only relax the parts, but likewise draw off a little moisture, and may prevent the necessity of blistering-plaisters; which, however, when other things fail, must be applied.

If the stitch continue after bleeding, fomentation, &c. a blistering-plaister must be applied over the part affected, and suffered to remain for two days. This not only procures a discharge from the side, but takes off the spasm, and by that means assists in removing the cause of the disease. To prevent a stranguary, when the blistering-plaister is on, the patient may drink freely of Arabic emulsion.

If the patient be costive, a little magnesia, or Epsom salt (half an ounce of the latter), in a little gruel or barley-water. This will not only empty the bowels, but will diminish the inflammation of the pleura.

The expectoration may be promoted by sharp, oily, and mucilaginous medicines. For this purpose, an ounce of the oxymel or vinegar of squills, may be added to six ounces of pectoral decoction, and two table-spoonfuls taken every two hours.

Should the squill disagree with the stomach, the oily emulsion may be administered; or, in place of it, two ounces of the oil of sweet almonds, or oil of olives, and two ounces of the syrup of violets, may be mixed with as much sugarcandy powdered as will make an electuary of the consistence of honey. The patient may take a tea-spoonful of this frequently, when the cough is troublesome. Should oily medicines prove nauseous, which is sometimes the case, two table-spoonfuls of the solution of gum-ammoniac in barley-water may be given three or four times a day.

If the patient does not perspire, but has a burning heat upon his skin, and passes very little water, some small doses of purified nitre and camphire will be of use. One drachm of the former may be rubbed with five or six grains of the latter in a mortar, and the whole divided into six doses, one of which may be taken every five or six hours, in a little of the patient's ordinary drink.

We shall only mention one medicine more, which some reckon almost a specific in the pleurisy, *viz.* the decoction of the seneka rattle-snake root. After bleeding and other evacuations have been premised, the patient may take two, three, or four table-spoonfuls of

this decoction, according as his stomach will bear it, three or four times a day. If it should occasion vomiting, two or three ounces of simple cinnamon-water may be mixed with the quantity of decoction here directed, or it may be taken in smaller doses. As this medicine promotes perspiration and urine, and likewise keeps the body easy, it may be of some service in a pleurisy, or any other inflammation of the breast.

No one will imagine that these medicines are all to be used at the same time. We have mentioned different things, on purpose that people may have it in their power to choose; and likewise, that when one cannot be obtained, they may make use of another. Different medicines are no doubt necessary in the different periods of a disorder; and where one fails of success, or disagrees with the patient, it will be proper to try another.

What is called the crisis, or height of the fever, is sometimes attended with very alarming symptoms, as difficulty of breathing, an irregular pulse, convulsive motions, &c. These are apt to frighten the attendants, and induce them to do improper things, as bleeding the patient, giving him strong stimulating medicines, or the like. But they are only the struggles of Nature to overcome the disease, in which she ought to be assisted by plenty of diluting drink, which is then peculiarly necessary. If the patient's strength, however, be much exhausted by the disease, it will be necessary at this time to support him with frequent small draughts of wine-whey, negus, or the like.

When the pain and fever are gone, it will be proper, after the patient has recovered sufficient strength, to give him some gentle purges, as those directed towards the end of an acute continual fever. He ought likewise to use a light diet of easy digestion, and his drink should be butter-milk, whey, and other things of a cleansing nature.

Of the Bastard Pleurisy.

That species of pleurisy which is called the *bastard*

or *spurious*, generally goes off by keeping warm for a few days, drinking plenty of diluting liquors, and observing a cooling regimen.

It is known by a dry cough, a quick pulse, and a difficulty of lying on the affected side; which last does not always happen in the true pleurisy. Sometimes, indeed, this disease proves obstinate, and requires bleeding with cupping, and scarifications of the part affected. These, together with the use of nitrous and other cooling medicines, seldom fail to effect a cure. The application of blisters in this disease has often proved fatal.

Of the Paraphrenitis.

The *paraphrenitis*, or inflammation of the diaphragm, is so nearly connected with the pleurisy, and resembles it so much in the manner of treatment, that it is scarcely necessary to consider it as a separate disease.

It is attended with a very acute fever, and an extreme pain in the part affected, which is generally augmented by coughing, sneezing, drawing in the breath, taking food, going to stool, making water, &c. Hence the patient breathes quick, and draws in his bowels to prevent the motion of the diaphragm; is restless, anxious, has a dry cough, a hiccup, and often a delirium. A convulsive laugh, or rather a kind of involuntary grin, is no uncommon symptom of this disease.

Every method must be taken to prevent a suppuration, as it is impossible to save the patient's life when this happens. The regimen and medicine are in all respects the same as in the pleurisy. We shall only add, that, in this disease, emollient clysters are peculiarly useful, as they relax the bowels, and by that means make a derivation from the part affected.

Of a Peripneumony, or Inflammation of the Lungs.

As this disease affects an organ which is absolutely necessary to life, it must always be attended with danger. Persons who abound with thick blood, whose fibres are tense and rigid, who feed upon gross aliment, and drink strong viscid liquors, are most liable to a peripneumony. Sometimes the inflammation reaches to one lobe of the lungs only; at other times the whole of the organ is affected; in which case the disease can hardly fail to prove very obstinate.

When the disease proceeds from a viscid pituitous matter obstructing the vessels of the lungs, it is called spurious or bastard peripneumony. When it arises from a thin acrid defluction on the lungs, it is denominated catarrhal peripneumony, &c.

Causes.—An inflammation of the lungs is sometimes a primary disease, and at other times it is the consequence of other diseases, as a quinsey, pleurisy, &c. It proceeds from the same causes as the pleurisy, *viz.* an obstructed perspiration from cold, wet clothes, &c. or from an increased circulation of the blood by violent exercise, the use of spiceries, ardent spirits, and such like. The pleurisy and peripneumony are often complicated; in which case the disease is called a pleuro-peripneumony.

Symptoms.—Most of the symptoms of a pleurisy likewise attend an inflammation of the lungs; only in the latter the pulse is more soft, and the pain less acute; but the difficulty of breathing, and oppression of the breast are generally greater.

Regimen.—As the regimen and medicine are in all respects the same in the true peripneumony as in the pleurisy, we shall not here repeat them, but refer the reader to the treatment of that disease. It may not, however, be improper to add, that the aliment ought to be more tender and thin in this than in any other inflammatory disease. The learned Dr. Arbuthnot asserts, that even common whey is sufficient to support the patient, and that decoctions of barley, and infusions of fennel-roots in warm water, with milk,

are the most proper both for drink and nourishment. He likewise recommends the steam of warm water taken by the breath, which serves as a kind of internal fomentation, and helps to attenuate the impacted humours. If the patient has loose stools, but is not weakened by them, they are not to be stopped, but rather promoted by the use of emollient clysters.

It has already been observed, that the spurious or bastard peripneumony is occasioned by a viscid pituitous matter obstructing the vessels of the lungs. It commonly attacks the old, infirm, and phlegmatic, in winter and wet seasons.

The patient at the beginning is cold and hot by turns, has a small quick pulse, feels a sense of weight upon his breast, breathes with difficulty, and sometimes complains of a pain and giddiness in his head. His urine is usually pale, and his colour very little changed.

The diet, in this, as well as in the true peripneumony, must be very slender; as weak broths, sharpened with the juice of orange or lemon, and such like. His drink may be thin water-gruel, sweetened with honey, or a decoction of the roots of fennel and liquorice. An ounce of each of these may be boiled in three English pints of water to a quart, and sharpened with a little currant-jelly, or the like.

Bleeding and purging are generally proper at the beginning of this disease; but if the patient's spittle be pretty thick, or well concocted, neither of them is necessary. It will be sufficient to assist the expectoration by some of the sharp medicines recommended for that purpose in the pleurisy, as the solution of gum-ammoniac, with oxymel of squills, &c. Or, the following emulsion may be given with advantage: spermaceti two drachms; of the yoke of an egg a sufficient quantity; three drachms of the spirit of nitrous ether; distilled or spring water six ounces; syrup of sugar two drachms. Mix these in a mortar; first the spermaceti and egg, then the spirit, and lastly the water and syrup. Two table-spoonfuls of this may be given every three hours.

Blistering-plaisters have generally a good effect, and ought to be applied in an early stage of the disease.

If the patient do not spit, he must be bled, according as his strength will permit, and have a gentle purge administered. Afterwards his body may be kept open by clysters, and the expectoration promoted by taking every four hours two table-spoonfuls of the solution mentioned above.

When an inflammation of the breast does not yield to bleeding, blistering, and other evacuations, it commonly ends in a suppuration, is more or less dangerous, according to the part where it is situated. When this happens in the pleura, it sometimes breaks outwardly, and the matter is discharged by the wound.

When the suppuration happens within the substance or body of the lungs, the matter may be discharged by expectoration; but if the matter floats in the cavity of the breast, between the pleura and the lungs, it can only be discharged by an incision made between the ribs.

If the patient's strength do not return after the inflammation is to all appearance removed; if his pulse continue quick, though soft, his breathing difficult and oppressed; if he have cold shiverings at times, his cheeks flushed, his lips dry; and if he complains of thirst, and want of appetite, there is reason to fear a suppuration, and that a phthisis or consumption of the lungs will ensue. We shall therefore next proceed to consider the proper treatment of that disease.

Of Consumptions.

A CONSUMPTION is a wasting of the whole body, from an ulcer, tubercles, or concretion of the lungs, an empyema, a nervous atrophy, or cachexy.

Dr. Arbuthnot observes, that in his time consumptions made up above one-tenth part of the bills of mortality in and about London. There is reason to believe they have rather increased since; and we know,

from experience, that they are not less fatal in some other towns of England than in London.

Young persons, between the age of fifteen and thirty, of a slender make, long neck, high shoulders, and flat breasts, are most liable to this disease.

Consumptions prevail more in England than in any other part of the world, owing perhaps to the great use of animal food and malt-liquors, the general application to sedentary employments, and the great quantity of pit-coal which is there burnt; to which we may add, the perpetual changes in the atmosphere, or variableness of the weather.

Causes.—It has already been observed, that an inflammation of the breast often ends in an imposthume; consequently whatever disposes people to this disease, must likewise be considered as a cause of consumption.

Other diseases, by vitiating the habit, may likewise occasion consumptions; as the scurvy, the scrophula or king's evil, the venereal disease, the asthma, small pox, measles, &c.

As this disease is with great difficulty cured, we shall endeavour the more particularly to point out its causes, in order that people may be enabled to avoid it. These are:

Confined or unwholesome air: when this fluid is impregnated with the fumes of metals or minerals, it proves extremely hurtful to the lungs, and often corrodes the tender vessels of that necessary organ.

—— Violent passions, exertions or affections of the mind; as grief, disappointment, anxiety, or close application to the study of abstruse arts or sciences.

—— Great evacuations; as sweating, diarrhœas, diabetes, excessive venery, the fluor albus, an over-discharge of the menstrual flux, giving suck too long, &c.

—— The sudden stoppages of customary evacuations; as the bleeding piles, sweating of the feet, bleeding at the nose, the menses, issues, ulcers, or eruptions of any kind.

—— Making a sudden transition from a hot to a

very cold climate, change of apparel, or whatever greatly lessens the perspiration.

—— Frequent and excessive debaucheries. Late watching and drinking strong liquors, which generally go together, can hardly fail to destroy the lungs.—Hence the bon companion generally falls a sacrifice to this disease.

—— Infection. Consumptions are likewise caught by sleeping with the diseased; for which reason this should be carefully avoided. It cannot be of great benefit to the sick, and must hurt those in health.

—— Occupations in life. Those artificers who sit much, and are constantly leaning forward, or pressing upon the stomach and breast, as cutlers, tailors, shoemakers, seamstresses, &c. often die of consumptions. They likewise prove fatal to singers, and all who have occasion to make frequent and violent exertions of the lungs.

—— Cold. More consumptive patients date the beginning of their disorders from wet feet, damp beds, night air, wet clothes, or catching cold after the body had been heated, than from all other causes.

Sharp, saline, and aromatic aliments, which heat and inflame the blood, are likewise frequently the cause of consumptions.

We shall only add, that this disease is often owing to an hereditary taint, or a scrophulous habit, in which case it is generally incurable.

Symptoms.—This disease generally begins with a dry cough, which often continues for some months. If a disposition to vomit after eating be excited by it, there is still greater reason to fear an approaching consumption. The patient complains of a more than usual degree of heat, a pain and oppression of the breast, especially after motion; his spittle is of a saltish taste, and sometimes mixed with blood; he is apt to be sad, his appetite is indifferent, and his thirst is great. There is generally a quick, soft, small pulse, though sometimes the pulse is pretty full, and rather hard. These are the common symptoms of a beginning consumption.

Afterwards the patient begins to spit a greenish, white, or bloody matter. His body is extenuated by the hectic fever and colliquative sweats, which mutually succeed one another, *viz.* the one towards night, and the other in the morning; a looseness, and an excessive discharge of urine, are troublesome symptoms at this time, and greatly weaken the patient. There is a burning heat in the palms of the hands, and the face generally flushes after eating; the fingers become remarkably small, the nails are bent inwards, and the hairs fall off.

At last the swelling of the feet and legs, the total loss of strength, the sinking of the eyes, the difficulty of swallowing, and the coolness of the extremities, shew the near approach of death, which, however, the patient seldom believes. Such is the usual progress of this fatal disease, which, if not early checked, commonly sets all medicine at defiance.

Regimen.—On the first appearance of a consumption, if the patient lives in a large town, or any place where the air is confined, he ought immediately to quit it, and to make choice of a situation in the country, where the air is pure and free. Here he must not remain inactive, but take every day as much exercise as he can bear, without fatigue.

The best method of taking exercise is to ride on horseback, as this gives the body a great deal of motion, without much weariness. Such as cannot bear this kind of exercise, must make use of a carriage. A long journey, as it amuses the mind by a continual change of objects, is greatly preferable to riding the same ground over and over. Care, however, must be taken to avoid catching cold from wet clothes, damp beds, or the like. The patient ought always to finish his ride in the morning, or at least before dinner; otherwise it will oftener do harm than good.

It is pity those who attend the sick seldom recommend riding in this disease, till the patient is either unable to bear it, or the malady has become incurable. Patients are likewise apt to trifle with every thing that is in their own power. They cannot see how one of

the common actions of life should prove a remedy in an obstinate disease, and therefore they reject it, while they greedily hunt after relief from medicine, merely because they do not understand it.

Those who have strength and courage to undertake a pretty long voyage, may expect great advantage from it. This has frequently cured a consumption after the patient was, to all appearance, far advanced in that disease, and where medicine had proved ineffectual. Hence it is reasonable to conclude, that, if a voyage were undertaken in due time, it would seldom fail to perform a cure.*

Such as try this method of cure ought to carry as much fresh provisions along with them as will serve for the whole time they are at sea;—as milk is not easily obtained in this situation, they ought to live upon fruits, and the broth of chickens, or other young animals, which can be kept alive on board. It is scarcely necessary to add, that such voyages should be undertaken, if possible, in the mildest season, and that they ought to be towards a warmer climate.†

Those who have not courage for a long voyage may travel into a more southern climate, as the south of France, Spain, or Portugal; and if they find the air of these countries agree with them, they should continue there at least till their health be confirmed.

Next to proper air and exercise, we would recommend a due attention to diet. The patient should eat nothing that is either heating or hard of digestion, and his drink must be of a soft and cooling nature. All the diet ought to be calculated to lessen the acrimony

* Two things chiefly operate to prevent the benefit which would arise from sailing. The one is, that the physicians seldom order it till the disease is too far advanced; and the other is, that they seldom order a voyage of a sufficient length. A patient may receive no benefit by crossing the Channel, who, should he cross the Atlantic, might be completely cured. Indeed, we have reason to believe that a voyage of this kind, if taken in due time, would seldom fail to cure a consumption.

† Though I do not remember to have seen one instance of a genuine consumption of the lungs cured by medicine, yet I have known a West-India voyage work wonders in that disorder.

of the humours, and to nourish and support the patient. For this purpose he must keep chiefly to the use of vegetables and milk. Milk alone is of more value in this disease than the whole materia medica.

Asses' milk is commonly reckoned preferable to any other, but it cannot always be obtained; besides, it is generally taken in a very small quantity; whereas, to produce any effects, it ought to make a considerable part of the patient's diet. It is hardly to be expected that a gill or two of asses' milk, drank in the space of twenty-four hours, should be able to produce any considerable change in the humours of an adult; and, when people do not perceive its effects soon, they lose hope, and so leave it off. Hence it happens, that this medicine, however valuable, very seldom performs a cure. The reason is obvious, it is commonly used too late, is taken in too small quantities, and is not duly persisted in.

I have known very extraordinary effects from asses' milk in obstinate coughs, which threatened a consumption of the lungs, and do verily believe, if used at this period, that it would seldom fail; but if it be delayed till an ulcer is formed, which is generally the case, how can it be expected to succeed?

Asses' milk ought to be drank, if possible, in its natural warmth, and, by a grown person, in the quantity of half an English pint at a time. Instead of taking this quantity night and morning only, the patient ought to take it four times, or at least thrice a day, and to eat a little light bread along with it, so as to make it a kind of meal.

If the milk should happen to purge, it may be mixed with old conserve of roses. Asses' milk is usually ordered to be drank warm in bed; but as it generally throws the patient into a sweat when taken in this way, it would be better to give it after he rises.

Some extraordinary cures in consumptive cases have been performed by women's milk. Could this be obtained in sufficient quantity, we would recommend it in preference to any other. It is better if the patient can suck it from the breast, than to drink it afterwards.

A man who was reduced to such a degree of weakness in a consumption, as not to be able to turn himself in bed; his wife at that time giving suck, and the child happening to die, he sucked her breasts, not with a view to reap any advantage from the milk, but to make her easy. Finding himself, however, greatly benefited by it, he continued to suck her till he was perfectly well.

Some prefer butter-milk to any other, and it is indeed a very valuable medicine, if the stomach be able to bear it. It does not agree with every person at first, and is therefore often laid aside without a sufficient trial. It should at first be taken sparingly, and the quantity gradually increased till it becomes to be almost the sole food. It cannot be expected to succeed, unless where the patient almost lives upon it.

Cow's milk is most readily obtained of any, and, though it be not so easy digested as that of asses or mares, it may be rendered lighter, by adding to it an equal quantity of barley-water, or allowing it to stand for some hours, and afterwards taking off the cream. If it should, notwithstanding, prove heavy to the stomach, a very small quantity of brandy or rum, with a little sugar may be added, which will render it both more light and nourishing.

It is not to be wondered, that milk should for some time disagree with a stomach that has not been accustomed to digest any thing but flesh and strong liquors, which is the case with many of those who fall into consumptions. We do not, however, advise those who have been accustomed to animal food and strong liquors, to leave them off all at once. This might be dangerous. It will be necessary for such to eat a little once a day of the flesh of some young animal, or rather to use the broth made of chickens, veal, lamb, or the like. They ought likewise to drink a little wine made into negus, or diluted with twice or thrice its quantity of water, and to make it gradually weaker till they can leave it off altogether.

These must be used only as preparative to a diet consisting chiefly of milk and vegetables, which the

sooner the patient can be brought to bear, the better. Rice and milk, or barley and milk, boiled with a little sugar, is very proper food. Ripe fruits, roasted, baked, or boiled, are likewise proper, as goose or currant berry tarts, apples roasted or boiled in milk, &c. The jellies, conserves, and preserves of ripe subacid fruits, ought to be eaten plentifully; as the jelly of currants, conserve of roses, preserved plums, cherries, &c.

Wholesome air, proper exercise, and a diet consisting chiefly of these and other vegetables, with milk, is the only course that can be depended upon in a beginning consumption. If the patient has strength, and a sufficient resolution, to persist in this course, he will seldom be disappointed of a cure.

If the patient's strength and spirits flag, he must be supported with strong broths, jellies, and such like. Some recommend shell-fish in this disorder, and with some reason, as they are nourishing and restorative. All the food and drink, however, ought to be taken in small quantities, lest an over-charge of fresh chyle should oppress the lungs, and too much accelerate the circulation of the blood.

The patient's mind should be kept as easy and cheerful as possible. Consumptions are often occasioned, and always aggravated, by a melancholy cast of mind.

MEDICINE.—Though the cure of this disease depends chiefly upon regimen, and the patient's own endeavours, yet we shall mention a few things which may be of service in relieving some of the more violent symptoms.

In the first stage of a consumption, the cough may sometimes be appeased; and the expectoration may be promoted by the following medicines:—Take fresh squills, gum-ammoniac, and powdered cardamum-seeds, of each a quarter of an ounce; beat them together in a mortar, and if the mass prove too hard for pills, a little of any kind of syrup may be added to it. This may be formed into pills of a moderate size, and four or five of them taken twice or thrice a day, according as the patient's stomach will bear them.

The milk of gum-ammoniac, as it is called, is likewise a proper medicine in this stage of the disease. It may be used as directed in the pleurisy. Or, the following mixture may be suitable, especially where the patient perspires copiously in the night-time.

Take kali, or sub-carbonate of potass, one drachm; juice of lemon, one ounce and half; compound tincture of benjamin, six drachms; triturate in a mortar, with a little mucilage of gum-arabic: cinnamon-water, six ounces; ammoniated tincture of opium, and syrup of orange-peel, each two drachms. Two table-spoonfuls of this may be taken every three hours.

A mixture made of equal parts of lemon-juice, fine honey, and syrup of poppies, may likewise be used. Four ounces of each of these may be simmered together in a saucepan over a gentle fire, and a table-spoonful of it taken at any time when the cough is troublesome.

It is common in this stage of the disease to load the patient's stomach with oily and balsamic medicines. These, instead of removing the cause of the disease, tend rather to increase it, by heating the blood, while they pall the appetite, relax the solids, and prove every way hurtful to the patient. Whatever is used for removing the cough, besides riding and other proper regimen, ought to be medicines of a sharp and cleansing nature, as oxymel, syrup of lemons, &c.

Acids seem to have peculiarly good effects in this disease; they both tend to quench the patient's thirst and to cool the blood. The vegetable acids, as apples, oranges, lemons, &c. appear to be the most proper. I have known patients suck the juice of several lemons every day with manifest advantage; and would for this reason recommend acid vegetables to be taken in as great quantity as the stomach will bear them.

For the patient's drink, we would recommend infusions of the bitter plants, as ground-ivy, the lesser centaury, camomile-flowers, or water trefoil. These infusions may be drank at pleasure. They strengthen the stomach, promote digestion, &c. rectify the blood, and at the same time answer all the purposes of dilu-

tion, and quench the thirst much better than things that are luscious or sweet. But if the patient spit blood, he ought to use for his ordinary drink infusions or decoctions of the vulnerary roots, plants, &c. Nettle-tea, or a strong infusion of nettles, is very proper and useful in this case. A tea-cupful of it may be taken cold, or nearly so, sweetened with honey, several times in the day.

There are many other mucilaginous plants and seeds, of a healing and agglutinating nature, from which infusions and decoctions may be prepared with the same intention; as, the orches, the quince-seed, coltsfoot, linseed, sarsaparilla, &c. It is not necessary to mention the different ways in which these may be prepared. Simple infusion or boiling is all that is necessary, and the dose may be at discretion.

The conserve of roses is here peculiarly proper. It may either be put into the decoction above prescribed, or eaten by itself. No benefit is to be expected from trifling doses of this medicine. I never knew it of any service, unless where three or four ounces at least were used daily for a considerable time. In this way I have seen it produce very happy effects, and would recommend it wherever there is a discharge of blood from the lungs.

When the spitting up of gross matter, oppression of the breast, and the hectic symptoms, shew that an imposthume is formed on the lungs, we would recommend the Peruvian bark, that being the only drug which has any chance to counteract the general tendency which the humours then have to putrefaction.

An ounce of the bark in powder may be divided into eighteen or twenty doses, of which one may be taken every three hours through the day, in a little syrup, or a cup of horehound-tea.

If the bark should happen to purge, it may be made into an electuary with the conserve of roses, thus—Take old conserve of roses, a quarter of a pound; Peruvian bark, half an ounce; syrup of orange or lemon, as much as will make it of the consistence of honey.

This quantity will serve the patient four or five days, and may be repeated as there is occasion.

Such as cannot take the bark in substance, may infuse it in cold water. This seems to be the best menstruum for extracting the virtues of that drug. Half an ounce of bark in powder may be infused for twenty-four hours in half an English pint of water. Afterwards let it be passed through a fine strainer, and an ordinary tea-cupful of it taken three or four times a day.

We would not, on any account, recommend the bark while there are any symptoms of an inflammation of the breast; but when it is certainly known that matter is collecting there, it is one of the best medicines which can be used. Few persons, indeed, have resolution enough to give the bark a fair trial at this period of the disease, otherwise we have reason to believe that some benefit might be reaped from it.

When it is evident that there is an imposthume in the breast, and the matter can neither be spit up nor carried off by absorption, the patient must endeavour to make it break inwardly, by drawing in the steams of warm water or vinegar with his breath, coughing, speaking aloud, &c. When it happens to burst within the lungs, the matter may be discharged by the mouth. Sometimes indeed the bursting of the vomica occasions immediate death, by suffocating the patient: when the quantity of matter is great, and the patient's strength exhausted, this is commonly the case. At any rate, the patient is ready to fall into a swoon, and should have volatile liquor of hartshorn held to his nose. Or, the following electuary:

Take conserve of red roses, two ounces; white resin, finely powdered, one ounce; honey, ten drachms; syrup of orange-peel, enough to form the whole into an electuary. A tea-spoonful of this may be taken three times a day. Should this prove too opening, three or four drops of laudanum may be taken with each dose; or, a small tea-spoonful of ammoniated tincture of opium may be taken at night.

If the matter discharged be thick, and the cough and breathing become easier, there may be some hopes of a cure. The diet at this time ought to be light, but restorative, as chicken broths, sago-gruel, rice-milk, &c. the drink, butter-milk or whey, sweetened with honey. This is likewise a proper time for using the Peruvian bark, which may be taken as directed above. Or,

Take of red bark, six drachms; extract of liquorice, two drachms; oil of aniseed, forty drops; filings of iron, two scruples; mucilage of gum-arabic, as much as is sufficient to make an electuary. A tea-spoonful of this to be taken twice or thrice a day. If there be much fever, the filings of iron may be omitted, and half a drachm of nitre may be used in its stead.

If the vomica or imposthume should discharge itself into the cavity of the breast, between the pleura and the lungs, there is no way of getting the matter out but by an incision, as has already been observed. As this operation must always be performed by a surgeon, it is not necessary here to describe it. We shall only add, that it is not so dreadful as people are apt to imagine, and that it is the only chance the patient in this case has for his life.

A Nervous Consumption,

Is a wasting or decay of the whole body, without any considerable degree of fever, cough, or difficulty of breathing. It is attended with indigestion, weakness, want of appetite, &c.

Those who are of a fretful temper, who indulge in spirituous liquors, or who breathe an unwholesome air, are most liable to this disease.

The following medicine will allay the irritation of the lungs, and lessen the violence of the cough:

Take balsam of copaiva, one drachm; mucilage of gum-arabic, two ounces; almond-emulsion, six ounces; aerated kali, half a drachm. Mix. Take two table-spoonfuls every three hours, or whenever the cough is troublesome.

We would chiefly recommend, for the cure of a nervous consumption, a light and nourishing diet, plenty of exercise in a free open air, and the use of such bitters as brace and strengthen the stomach; as, the Peruvian bark, quassia, gentian-root, camomile, horehound, &c. These may be infused in water or wine, and a glass of it drank frequently.

It will greatly assist the digestion, and promote the cure of this disease, to take twice a day twenty drops of the elixir of vitriol in a glass of wine or water.—Chalybeate wine is likewise an excellent medicine in this case. It strengthens the solids, and powerfully assists nature in the preparation of good blood.

Agreeable employments, cheerful company, and riding about, are, however, preferable to all medicines in this disease. For which reason, when the patient can afford it, we would recommend a long journey, as the most likely means to restore his health.

What is called a *Symptomatic Consumption*, cannot be cured without first removing the disease by which it is occasioned. Thus, when a consumption proceeds from the scrofula or king's-evil, from the scurvy, the asthma, the venereal disease, &c. a due attention must be paid to the malady from whence it arises, and the regimen and medicine be directed accordingly.

When *excessive evacuations* of any kind occasion a consumption, they must not only be restrained, but the patient's strength must be restored by gentle exercise, nourishing diet, and generous cordials. Young and delicate mothers often fall into consumptions, by giving suck too long. As soon as they perceive their strength and appetite begin to fail, they ought immediately to wean the child, or provide another nurse, otherwise they cannot expect a cure.

Before we quit this subject, we would earnestly recommend it to all, as they wish to avoid consumptions, to take as much exercise without doors as they can, to avoid unwholesome air, and to study sobriety.—Consumptions owe their present increase not a little to the fashion of sitting up late, eating hot suppers, and spending every evening in drinking strong liquors.

These liquors, when too freely used, not only hurt the digestion and spoil the appetite, but heat and inflame the blood, and set the whole constitution on fire. This disease is considerably increased from the effeminate education and enervating mode of the physical treatment of children, which produces a delicacy of habit pregnant with this disorder.

Consumption hardly admits of a cure, unless taken very early; for when it becomes deeply seated, it will baffle the efforts of the best physicians. The best advice, therefore, we can give is, to be careful to avoid it, by guarding against catching cold, which is too frequently its precursor and immediate cause.

Of the Slow or Nervous Fever.

Nervous fevers have increased greatly of late years in this island, owing doubtless to our different manner of living, and the increase of sedentary employments; as they commonly attack persons of a weak relaxed habit, or who indulge in spirituous liquors.

Causes.—Nervous fevers may be occasioned by whatever depresses the spirits, or impoverishes the blood; as grief, fear, anxiety, want of sleep, intense thought, living on poor watery diet, unripe fruits, cucumbers, melons, mushrooms, &c. They may likewise be occasioned by damp, confined, or unwholesome air. Hence they are very common in rainy seasons, and prove most fatal to those who live in dirty low houses, crowded streets, hospitals, jails, or such like places.

Keeping on wet clothes, lying on the damp ground, excessive fatigue, and whatever obstructs the perspiration, or causes a spasmodic stricture of the solids, may likewise occasion nervous fevers. We shall only add, frequent and great irregularities in diet. Too great abstinence, as well as excess, is hurtful. Nothing tends so much to preserve the body in a sound state, as a regular diet; nor can any thing contribute

more to occasion fevers of the worst kind, than its opposite.

Symptoms.—Low spirits, want of appetite, weakness, weariness after motion, watchfulness, deep sighing, and dejection of mind, are generally the forerunners of this disease. They are succeeded by a quick low pulse, a dry tongue without any considerable thirst, chilliness and flushing in turns, &c.

After some time, the patient complains of a giddiness and pain of the head, has a nausea, with retchings and vomiting; the pulse is quick, and sometimes intermitting; the urine pale, resembling dead small-beer; and the breathing is difficult, with oppression of the breast; and slight alienations of mind.

If, towards the ninth, tenth, or twelfth day, the tongue become more moist, with a plentiful spitting, a gentle purging, or a moisture upon the skin; or if a suppuration happen in one or both ears, or large pustules break out about the lips and the nose; there is reason to hope for a favourable crisis.

But, if there be an excessive looseness, or wasting sweats, with frequent fainting-fits; if the tongue, when put out, trembles excessively, and the extremities feel cold, with a fluttering or low creeping pulse; if there be a starting of the tendons, an almost total loss of sight and hearing, and an involuntary discharge by stool and urine; there is great reason to fear that death is approaching.

Regimen.—It is very necessary in this disease to keep the patient cool and quiet; the least motion would fatigue him, and will be apt to occasion weariness, and even faintings; his mind ought not only to be kept easy, but soothed and comforted with the hopes of a speedy recovery, where there is the least probability of escape from death. Nothing is more hurtful in low fevers of this kind, than presenting to the patient's imagination gloomy or frightful ideas. These of themselves often occasion nervous fevers, and it is not to be doubted but they will likewise aggravate them.

After the inflammatory symptoms have abated, the

patient must not be kept too low; his strength and spirits ought to be supported by nourishing diet and generous cordials. For this purpose his gruel, panada, or whatever food he takes, must be mixed with wine, according as the symptoms may require. Pretty strong wine-whey, or small negus, sharpened with the juice of orange or lemon, will be proper for his ordinary drink. Mustard-whey is likewise a very proper drink in this fever, and may be rendered an excellent cordial medicine by the addition of a proper quantity of white wine.

Wine in this disease, if it could be obtained genuine, is almost the only medicine that would be necessary. Good wine possesses all the virtues of the cordial medicines, while it is free from many of their bad qualities. I say good wine; for however common this article of luxury is now become, it is rarely to be obtained genuine, especially by the poor, who are obliged to purchase it in small quantities.

Patients in low nervous fevers, where the pulse could hardly be felt, with a constant delirium, coldness of the extremities, and almost every other mortal symptom, have recovered by taking, in whey, gruel, and negus, a bottle or two of strong wine every day. Good old sound claret is the best, and may be made into negus, or given by itself, as circumstances require.

In a word, the great aim in this disease is to support the patient's strength, by giving him frequently small quantities of the above, or other drinks of a warm and cordial nature; he is not, however, to be overheated either by liquor or clothes; and his food ought to be light, and given in small quantities.

Medicine.—Where a nausea, load, and sickness at the stomach, prevail at the beginning of the fever, it will be necessary to give the patient a gentle vomit. Fifteen or twenty grains of ipecacuanha in fine powder, or two grains of tartarized antimony, in a little warm water, will generally answer this purpose very well. This may be repeated any time before the third or fourth day, if the above symptoms continue. Vomits

not only cleanse the stomach, but, by the gentle shock which they give, promote the perspiration, and have many other excellent effects in slow fevers, where there are no signs of local inflammation, and nature wants rousing.

Such as dare not venture upon a vomit, may cleanse the bowels by a small dose of Turkey rhubarb, or an infusion of senna and manna.

In all fevers, the great point is to regulate the symptoms, so as to prevent them from going to either extreme. This, in fevers of the inflammatory kind, where the force of the circulation is too great, and the fibres too rigid, evacuations are necessary. But in nervous fevers, where nature flags, where the blood is vapid and poor, and the solids relaxed, the lancet must be spared, and wine, with other cordials, plentifully administered.

It is the more necessary to caution people against bleeding in this disease, as there is generally at the beginning an universal stricture upon the vessels, and sometimes an oppression and difficulty of breathing, which may suggest the idea of a plethora, or too great quantity of blood. I have known even some of the faculty deceived by their own feelings in this respect so far as to insist upon being bled, when it was evident from the consequences that the operation was improper.

Though bleeding is generally improper in this disease, yet blistering is highly necessary. Blistering-plaisters may be applied at all times of the fever with great advantage. If the patient be delirious, he ought to be blistered on the neck or head, and it will be the safest course, when the insensibility continues, as soon as the discharge occasioned by one blistering-plaister abates, to apply another to some other part of the body, and by that means keep up a continual succession of them till he be out of danger.

I have been more sensible of the advantage of blistering in this than in any other disease. Blistering-plaisters not only stimulate the solids to action, but likewise occasion a continual discharge, which ma

in some measure supply the want of critical evacuations, which seldom happen in this kind of fever. They are most proper, however, either towards the beginning, or after some degree of stupor has come on; in which last case it will always be proper to blister the head.

If the patient be costive through the course of the disease, it will be necessary to procure a stool, by giving every other day a clyster of milk and water, with a little sugar, to which may be added a spoonful of common salt, if the above does not operate.

A miliary eruption sometimes breaks out about the ninth or tenth day; as eruptions are often critical, great care should be taken not to retard Nature's operation in this particular. The eruption ought neither to be checked by bleeding nor other evacuations, nor pushed out by a hot regimen; but the patient should be supported by gentle cordials, as wine-whey, small negus, sago-gruel with a little wine in it, and such like. He ought not to be kept too warm, yet a kindly breathing sweat should by no means be checked.

Though blistering and the use of cordial liquors are the chief things to be depended upon in this kind of fever; yet for those who may choose to use them, we shall mention one or two of the forms of medicine which are commonly prescribed in it.

When the patient is low, ten grains of Virginian snake-root, and the same quantity of contrayerva-root, with five grains of Russian castor, all in fine powder, may be made into a bolus with a little of the cordial confection or syrup of saffron. One of these may be taken every four or five hours.

The following powder may be used with the same intention:—Take wild Valerian-root in powder, one scruple; saffron and castor, each four grains: mix these by rubbing them together in a mortar, and give one in a cup of wine-whey, three or four times a day.

In desperate cases, where the hiccup and starting of the tendons have already come on, we have sometimes seen extraordinary effects from large doses of musk frequently repeated. Musk is doubtless an anti-

spasmodic, and may be given to the quantity of a scruple three or four times a day, or oftener, if necessary. Sometimes it may be proper to add to the musk a few grains of camphire and salt of hartshorn, as these tend to promote perspiration and the discharge of urine. Thus, fifteen grains of musk, with three grains of camphire, may be made into a bolus with a little syrup, and given as above.

If the fever should happen to intermit, which it frequently does towards the decline, or if the patient's strength should be wasted with colliquative sweats, &c. it will be necessary to give him the Peruvian bark. Half a drachm of the bark in fine powder, may be given four or five times a day, in a glass of red port or claret. Should the bark in substance not sit easy on the stomach, an ounce of it in powder may be infused in a bottle of Lisbon or Rhenish wine for two or three days, afterwards it may be strained, and a glass of it taken frequently.

The bark may likewise be very properly administered in the following manner:—Take an ounce of Peruvian bark, in quill, bruised; orange-peel, half an ounce; Virginian snake-root, two drachms; water, a pint and half: boil to half the quantity, (over a slow fire, with the vessel covered,) strain while hot; and, when cold, add compound tincture of bark one ounce.

Three table-spoonfuls of this may be given every three or four hours, or oftener if necessary.

Some give the bark in this and other fevers, where there are no symptoms of inflammation, without any regard to the remission or intermission of the fever. How far future observations may tend to establish this practice we will not pretend to say; but we have reason to believe, that the bark is a very universal febrifuge, and that it may be administered with advantage in most fevers, where bleeding is not necessary, or where there are no symptoms of topical inflammation.

The nervous fever requires the most particular attention. The patient will certainly sink, even under the most favourable appearances, unless he be supported by cordial and stimulating medicine.

In all stages, and even the very extremity of this disorder, attention to the case of the patient should be unabated, it being at all times subject to the most sudden alterations for the better, as well as for the worse. A bottle, or even two, of generous wine, given in the course of twenty-four hours, to a person apparently beyond every hope, has produced the most favourable change, and the patient recovered.

Of the Typhus, Malignant, Putrid, or Spotted Fever.

This may be called the Pestilential Fever of Europe, as in many of its symptoms it bears a great resemblance to that dreadful disease the plague. Persons of a lax habit, a melancholy disposition, and those whose vigour has been wasted by long fasting, watching, hard labour, excessive venery, frequent salivations, &c. are most liable to it.

Causes.—This fever is more immediately occasioned by foul air, from a number of people being confined in a narrow place, not properly ventilated; from putrid animal and vegetable effluvia, &c. Hence it prevails in camps, jails, hospitals, and infirmaries, especially where such places are too much crowded, and cleanliness is neglected.

A close state of the air, with long rainy or foggy weather, likewise occasions putrid fevers. They often succeed great inundations, in low and marshy countries, especially when these are preceded or followed by a hot and sultry season.

Living too much upon animal food, without a proper mixture of vegetables, or eating fish or flesh that has been kept too long, are likewise apt to occasion this kind of fever. Hence sailors on long voyages, and the inhabitants of besieged cities, are very often visited with putrid fevers.

Corn that has been greatly damaged by rainy seasons, or long keeping, and water that has become

putrid by stagnation, &c. may likewise occasion this fever.

Dead carcases tainting the air, especially in hot seasons, are very apt to occasion putrid diseases. Hence this kind of fever often prevails in countries which are the scenes of war and bloodshed. This shews the propriety of removing burying-grounds, slaughter-houses, &c. to a proper distance from great towns.

Want of cleanliness is a very general cause of putrid fevers. Hence they prevail among the poor inhabitants of large towns, who breathe a confined unwholesome air, and neglect cleanliness. Such mechanics as carry on dirty employments, and are constantly confined within doors, are likewise very liable to this disease.

We shall only add, that this fever is highly infectious, and is therefore often communicated by contagion. For which reason, all persons ought to keep at a distance from those affected with such a disease, unless their attendance is absolutely necessary.

Symptoms.—A typhus fever is generally preceded by a remarkable weakness or loss of strength, without any apparent cause. This is sometimes so great that the patient can scarce walk, or even sit upright without being in danger of fainting away. His mind too is greatly dejected; he sighs, and is full of dreadful apprehensions.

There is a nausea, and sometimes a vomiting of bile, a violent pain of the head, with a strong pulsation or throbbing of the temporal arteries; the eyes often appear red and inflamed, with a pain at the bottom of the orbit; there is a noise in the ears, the breathing is laborious, and often interrupted with a sigh; the patient complains of a pain about the region of the stomach, and in his back and loins; his tongue is at first white, but afterwards appears black and chapped; and his teeth are covered with a black crust. He sometimes passes worms both upwards and downwards, is affected with tremors or shaking, and often becomes delirious.

If blood be let, it appears dissolved, or with a very

small degree of cohesion, and soon becomes putrid; the stools smell extremely fetid, and are sometimes of a greenish, black, or reddish cast. Spots of a pale, purple, dun, or black colour, often appear upon the skin, and sometimes there are violent hæmorrhages or discharges of blood from the mouth, eyes, nose, &c.

Putrid fevers may be distinguished from the inflammatory, by the smallness of the pulse, the great dejection of mind, the dissolved state of the blood, the petechiæ, or purple spots, and the putrid smell of the excrements. They may likewise be distinguished from the low or nervous fever by the heat and thirst being greater, the urine of a higher colour, and the loss of strength, dejection of mind, and all the other symptoms, more violent.

It sometimes happens, however, that the inflammatory, nervous, and putrid symptoms are so blended together, as to render it very difficult to determine to which class the fever belongs. In this case, the greatest caution and skill are requisite. Attention must be paid to those symptoms which are most prevalent, and both the regimen and medicines adapted to them. Inflammatory and nervous fevers may be converted into malignant and putrid, by too hot a regimen, or improper medicines.

The duration of putrid fevers is extremely uncertain; sometimes they terminate between the seventh and fourteenth day, and at other times they are prolonged for five or six weeks. The duration depends greatly upon the constitution of the patient, and the manner of treating the disease.

The most favourable symptoms are, a gentle looseness after the fourth or fifth day, with a warm mild sweat. These, when continued for a considerable time, often carry off the fever, and should never be imprudently stopped. Small miliary pustules appearing between the petechiæ or purple spots, are likewise favourable, as also hot scabby eruptions about the mouth and nose. It is a good sign when the pulse rises upon the use of wine or other cordials, and the nervous

symptoms abate; as are abcesses in the groin, or parotid glands.

Among the unfavourable symptoms may be reckoned an excessive looseness, with a hard swelled belly; large black or livid blotches breaking out upon the skin; aphthæ in the mouth; cold clammy sweats; blindness; change of the voice; a wild staring of the eyes; difficulty of swallowing; inability to put out the tongue; and a constant inclination to uncover the breast.—When the sweat and saliva are tinged with blood, and the urine is black, or deposits a black sooty sediment, the patient is in great danger. Starting of the tendons, and fetid, ichorus, involuntary stools, attended with coldness of the extremities, are generally the forerunners of death.

Regimen.—In the treatment of this disease, we ought to endeavour, as far as possible, to counteract the putrid tendency of the humours; to support the patient's strength and spirits, and to assist Nature in expelling the cause of the disease, by gently promoting perspiration and the other evacuations.

It has been observed, that putrid fevers are often occasioned by unwholesome air, and of course they must be aggravated by it. Care should therefore be taken to prevent the air from stagnating in the patient's chamber, to keep it cool, and renew it frequently, by opening the doors or windows of some adjacent apartment. The breath and perspiration of persons in perfect health soon render the air of a small apartment noxious; but this will sooner happen from the perspiration and breath of a person whose whole mass of humours are in a putrid state.

Besides the frequent admission of fresh air, we would recommend the use of vinegar, verjuice, juice of lemon, Seville orange, or any kind of vegetable acid that can be most readily obtained. These ought frequently to be sprinkled upon the floor, the bed, and every part of the room. They may also be evaporated with a hot iron, or by boiling, &c. Washing the body with cold vinegar, when the skin is hot and dry, and

folds of linen, dipt in it, applied to the forehead, may produce good effects. The fresh skins of lemons or oranges ought likewise to be laid in different parts of the room, and they should also be held to the patient's nose. The use of acids in this manner would not only prove very refreshing to the patient, but would tend to prevent the infection from spreading among those who attend him.

The patient must not only be kept cool, but likewise quiet and easy. The least noise will affect his head; and the smallest fatigue will be apt to make him faint.

Few things are of greater importance in this disease than acids, which ought to be mixed with all the patient's food as well as drink. Orange, lemon, or vinegar-whey, are all very proper, and may be drank by turns, according to the patient's inclination. They may be rendered cordial by the addition of wine, in such quantity as the patient's strength seems to require. When he is very low, he may drink negus, with only one half water, and sharpened with the juice of Seville orange, or lemon. In some cases, a glass of wine may now and then be allowed. The most proper wine is Rhenish; but if the body be open, red port or claret is to be preferred.

When the body is bound, a tea-spoonful of calcined magnesia may be put into a cup of the patient's drink, as there is occasion; or he may drink a decoction of tamarinds, which will both quench his thirst and promote a discharge by stool.

If camomile-tea will sit easy upon his stomach, it is a very proper drink in this disease. It may be sharpened by adding to every cup of tea, ten or fifteen drops of the elixir of vitriol.

The food must be light; as panada, or groat-gruel, to which a little wine may be added, if the patient be weak and low; and they ought all to be sharpened with the juice of orange, the jelly of currants, or the like. The patient ought likewise to eat freely of ripe fruits; as roasted apples, currant or gooseberry tarts, preserved cherries or plums, &c.

Taking a little food or drink frequently, not only supports the spirits, but counteracts the putrid tendency of the humours; for which reason the patient ought often to be sipping small quantities of some of the acid liquors mentioned above, or any that may be more agreeable to his palate, or more readily obtained.

If he be delirious, his feet and hands ought to be frequently fomented with a strong infusion of camomile-flowers. This cannot fail to have a good effect. Fomentations of this kind not only relieve the head, by relaxing the vessels in the extremities, but as their contents are absorbed and taken into the system, they may assist in preventing the putrescency of the humours.

Medicine.—If a vomit be given at the beginning of this fever, it will hardly fail to have a good effect; this should never be neglected one day after the attack, for if the fever has gone on for some days, and the symptoms are violent, vomits are not quite so safe. The body, however, is always to be kept gently open, by clysters or mild laxative medicines.

Bleeding is seldom necessary in putrid fevers. If there be signs of an inflammation, it may be removed by means more safe, and advantageous to the patient; such as frequently bathing the feet in warm water, gentle sudorifics, &c.

Blistering-plaisters are never used, except in the greatest extremities. If the petechiæ or spots should suddenly disappear, the patient's pulse sink remarkably, and a delirium, with other bad symptoms, come on, blistering may be permitted. In this case the blistering-plaisters are to be applied to the head, and inside of the legs or thighs. But as they are sometimes apt to occasion a gangrene, we would rather recommend warm cataplasms, or poultices of mustard and vinegar, to be applied to the feet, having recourse to blisters only in the utmost extremities.

A very ridiculous notion has long prevailed, of expelling the poisonous matter of malignant disease by trifling doses of cordial or alexipharmic medicines. In consequence of this notion, the contrayerva-root, the

cordial confection, the mithridate, &c. have been extolled as infallible remedies. There is reason, however, to believe that these seldom do much good. Where cordials are necessary, we know none that is superior to good wine; and, therefore, again recommend it both as the safest and best. Wine, with acids and antiseptics, are the only things to be relied on in the cure of malignant fevers.

In the most dangerous species of this disease, when it is attended with purple, livid, or black spots, the Peruvian bark must be administered. I have seen it when joined with acids, prove successful, even in cases where the petechiæ had the most threatening aspect. But, to answer this purpose, it must not only be given in large doses, but duly persisted in.

Yeast, in the quantity of a table-spoonful every three or four hours, has been administered in this fever with great success. Whether it be from the fixed air it contains, or from the peculiar anodyne property of the hop, that the advantage is derived, is not fully ascertained.

The best method of administering the bark is certainly in substance. An ounce of it in powder may be mixed with half an English pint of water, and the same quantity of red wine, and sharpened with the elixir or the spirit of vitriol, which will both make it sit easier on the stomach, and render it more beneficial. Two or three ounces of the syrup of lemon may be added, and two table-spoonfuls of the mixture taken every two hours or oftener, if the stomach is able to bear it.

Those who cannot take the bark in substance, may infuse it in wine, or take it in decoction, as recommended in the preceding disease.

If there be a violent looseness, the bark must be boiled in red wine, with a little cinnamon, and sharpened with the elixir of vitriol, as above. Nothing can be more beneficial in this kind of looseness than plenty of acids, and such things as promote a gentle perspiration.

If the patient be troubled with vomiting, a drachm

of sub-carbonate of potass, dissolved in an ounce and half of fresh lemon-juice, and made into a draught, with an ounce of simple cinnamon-water, and a bit of sugar, may be given, and repeated, as often as it is necessary.

If swellings of the glands appear, their suppuration is to be promoted by the application of poultices, ripening cataplasms, &c. and, as soon as there is any appearance of matter in them, they ought to be laid open, and the poultices continued.

For preventing putrid fevers, we would recommend a strict regard to cleanliness; a dry situation; sufficient exercise in the open air; wholesome food; and a moderate use of generous liquors. Infection ought above all things to be avoided. No constitution is proof against it.

When a putrid fever seizes any person in a family, the greatest attention is necessary to prevent the disease from spreading. The sick ought to be placed in a large apartment, as remote from the rest of the family as possible; he ought likewise to be kept extremely clean, and should have fresh air frequently let into his chamber; whatever comes from him should be immediately removed; his linen should be frequently changed; and those in health ought to avoid all unnecessary communication with him.

Any one who is apprehensive of having caught the infection, ought immediately to take a vomit, and to work it off by drinking plentifully of camomile-tea. This may be repeated in a day or two, if the apprehensions still continue, or any unfavourable symptoms appear.

The person ought likewise to take an infusion of the bark and camomile-flowers for his ordinary drink; before he goes to bed, he may drink a glass of pretty strong negus, or a few glasses of generous wine.

People generally fly to bleeding and purging, as antidotes against infection; but these are so far from securing them, that they often, by debilitating the body, increase the danger.

Those who wait upon the sick, in putrid fevers,

ought always to have a piece of sponge or handkerchief, dipped in vinegar, or juice of lemon, to smell to while near the patient. They ought likewise to wash their hands, and, if possible, to change their clothes, before they go into company.

Of the Miliary Fever.

This fever takes its name from the small pustules or bladders which appear on the skin, resembling in shape and size the seeds of millet. The pustules are either red or white, and sometimes both are mixed together.

The whole body is sometimes covered with pustules, but they are generally more numerous where the sweat is most abundant, as on the breast, the back, &c. A gentle sweat or moisture on the skin, greatly promotes the eruption; but when the skin is dry, the eruption is more painful and dangerous.

Sometimes this is a primary disease, but it is much oftener only a symptom of some other malady, as the small-pox, measles, ardent, putrid, or nervous fever, &c. In all these cases, it is generally the effect of too hot a regimen or medicines.

The miliary fever generally attacks the idle and the phlegmatic, or persons of a relaxed habit. The young and the aged are more liable to it than those in the vigour and prime of life. It is likewise more incident to women than men, especially the delicate and the indolent, who, neglecting exercise, keep continually within doors, and live upon weak watery diet. Such females are extremely liable to be seized with this disease in child-bed, and some lose their lives by it.

Causes.—The miliary fever is sometimes occasioned by violent passion or affections of the mind; as excessive grief, anxiety, thoughtfulness, &c. It may likewise be occasioned by excessive watching, great evacuations, a weak, watery diet, rainy seasons, eating

too freely of cold, crude, unripe fruits; as plums, cherries, cucumbers, melons, &c. Impure waters, or provisions which have been spoiled by rainy seasons, long keeping, &c. may likewise cause miliary fevers. They may also be occasioned by the stoppage of any customary evacuations; as issues, setons, ulcers, the bleeding piles in men, or the menstrual flux in women, &c.

This disease in child-bed women is sometimes the effect of great costiveness during pregnancy; it may likewise be occasioned by their excessive use of green trash, and other unwholesome things, in which pregnant women are too apt to indulge. But its most general cause is indolence. Such women as lead a sedentary life, especially during pregnancy, and at the same time live grossly, can hardly escape this disease in childbed. Hence it proves extremely fatal to women of fashion, and likewise to those women in manufacturing towns, who, in order to assist their husbands, sit close within doors for almost the whole of their time. But among women who are active and laborious, who live in the country, and take sufficient exercise without doors, the disease is very little known.

Symptoms.—When this is a primary disease, it makes its attack, like most other eruptive fevers, with a slight shivering, which is succeeded by heat, loss of strength, faintishness, sighing, a low quick pulse, difficulty of breathing, with great anxiety and oppression of the breast. The patient is restless, and sometimes delirious, the tongue appears white, and the hands shake, with often a burning heat in the palms; and in child-bed women the milk generally goes away, and the other discharges stop.

The patient feels an itching or pricking pain under the skin, after which innumerable small pustules of a red or white colour begin to appear. Upon this the symptoms generally abate, the pulse becomes more full and soft, the skin grows moister, and the sweat, as the disease advances, begins to have a peculiar fetid smell; the great load at the breast, and oppression of the spirits generally go off, and the customary evacu-

ations gradually return. About the sixth or seventh day from the eruption, the pustules begin to dry and fall off, which occasions a very disagreeable itching in the skin.

It is impossible to ascertain the exact time when the pustules will either appear or go off. They generally come out on the third or fourth day, when the eruption is critical; but when symptomatical, they may appear at any time of the disease.

Sometimes the pustules appear and vanish by turns. When that is the case, there is always danger; but when they go in all of a sudden, and do not appear again, the danger is very great.

In child-bed women, the pustules are commonly at first filled with clear water, afterwards they grow yellowish. Sometimes they are interspersed with pustules of a red colour. When these only appear, the disease goes by the name of a *rash*.

Regimen.—In all eruptive fevers, of whatever kind, the chief point is to prevent the sudden disappearance of the pustules, and to promote their maturation. For this purpose, the patient must be kept in such a temperature, as neither to push out the eruption too fast, nor to cause it to retreat too prematurely. The diet and drink ought, therefore, to be in a moderate degree nourishing and cordial, but neither strong nor heating. The patient's chamber ought neither to be kept too hot nor cold; and he should not be too much covered with clothes. Above all, the mind is to be kept easy and cheerful. Nothing so certainly makes an eruption go in as fear, or the apprehension of danger.

The food must be weak chicken-broth, with bread, panada, sago or groat-gruel, &c. to a gill of which may be added a spoonful or two of wine, as the patient's strength requires, with a few grains of salt, and a little sugar. Good apples, roasted or boiled, with other ripe fruits, of an opening cooling nature, may be eaten.

The drink may be suited to the state of the patient's strength and spirits. If these be pretty high, the drink

ought to be weak, as water-gruel, balm-tea, or barley-water, with juice of oranges in it.

When the patient's spirits are low, and the eruption does not rise sufficiently, his drink must be a little more generous; as wine-whey, or small negus, sharpened with the juice of orange or lemon, and made stronger or weaker, as circumstances may require.

Sometimes the miliary fever approaches towards a putrid nature, in which case the patient's strength must be supported with generous cordials joined with acids; and if the degree of putrescence be great, the Peruvian bark must be administered. If the head be much affected, the body must be kept open by emollient clysters.

MEDICINE.—If the food and drink be properly regulated, there will be little occasion for medicine in this disease. Should the eruption, however, not rise, or the spirits flag, it will not only be necessary to support the patient with cordials, but likewise to apply blistering-plaisters. The most proper cordial in this case is good wine, which may either be taken in the patient's food or drink; and if there be signs of putrescence, the bark and acids may be mixed with wine, as directed in the putrid fever.

Some recommend blistering throughout the whole course of this disease; and where nature flags, and the eruption comes and goes, it may be necessary to keep up a stimulus, by a continual succession of small blistering-plaisters; but we would not recommend above one at a time. If this fever be treated properly at the beginning, it is seldom attended with danger; but it may become so through want of judgment.

Though this fever be often occasioned in childbed-women by too hot a regimen, yet it would be dangerous to leave that off all of a sudden, and have recourse to a very cool regimen and large evacuations. We have reason to believe, that supporting the patient's spirits and promoting the natural evacuations, is here much safer than to have recourse to artificial ones, as these, by sinking the spirits, seldom fail to increase the danger.

If the disease proves tedious, or the recovery slow, we would recommend the Peruvian bark, which may either be taken in substance, or infused in wine and water, as the patient inclines.

The miliary fever, like other eruptive diseases, requires gentle purging, which should not be neglected, as soon as the fever is gone off, and the patient's strength will permit.

To prevent this disease, a pure dry air, sufficient exercise, and wholesome food, are necessary. Pregnant women should guard against costiveness, and take daily as much exercise as they can bear, avoiding all green trashy fruits, and other unwholesome things; and, when in childbed, they ought strictly to observe a cool regimen.

In this fever, the changes are so frequent and sudden, as to require constant attention; and, as it often shews altogether new symptoms, and assumes quite a different character, the diet and regimen demand an appropriate change; otherwise the death of the patient must be the inevitable consequence. When this is considered, it will evince very strongly the remarks made in a former place, of the futility and danger of any general strong fever-powder.

Of the Remitting Fever.

This fever takes its name from a remission of the symptoms, which happens sometimes sooner, and sometimes later, but generally before the eighth day. The remission is generally preceded by a gentle sweat, after which the patient seems greatly relieved, but in a few hours the fever returns. These remissions return at very irregular periods, and are sometimes of longer, sometimes of shorter, duration; the nearer, however, that the fever approaches to a regular intermittent, the disease is more favourable.

Causes.—Remitting fevers prevail in low marshy countries, abounding with wood and stagnating water;

but they prove most fatal in places where great heat and moisture are combined. They are most frequent in close calm weather, especially after rainy seasons, great inundations, or the like. No age, sex, or constitution, is exempted from the attack of this fever, but it chiefly seizes persons of a relaxed habit, who live in low dirty habitations, breathe an impure air, take little exercise, and use unwholesome diet.

Symptoms.—The first symptoms of this fever are generally yawning, stretching, pain, and giddiness in the head, with alternate fits of heat and cold. Sometimes the patient is affected with a delirium at the very first attack. There is a pain and sometimes a swelling about the region of the stomach, the tongue is white, the eyes and skin frequently appear yellow, and the patient is often afflicted with bilious vomitings. The pulse is sometimes a little hard, but seldom full; and if blood be let, it rarely shews any signs of inflammation. Some patients are exceedingly costive, and others are afflicted with a very troublesome looseness.

It is impossible to describe all the symptoms of this disease, as they vary according to the situation, the season of the year, and the constitution of the patient. They may likewise be greatly changed by the method of treatment, and by many other circumstances too tedious to mention. Sometimes the bilious symptoms predominate, sometimes the nervous, and at other times the putrid. Nor is it at all an uncommon case to find a succession of each of these symptoms, or even a complication of them, at the same time, in the same person.

Regimen.—The regimen must be adapted to the prevailing symptoms. When there are any signs of inflammation, the diet must be slender, and the drink weak and diluting. But when nervous or putrid symptoms occur, it will be necessary to support the patient with food and liquors of a more generous nature, such as we recommended in the immediately preceding fevers. We must, however, be very cautious in the use of things of a heating quality, as this fever

frequently changed into a CONTINUAL, by a hot regi-
en and improper medicines.

Whatever the symptoms are, the patient ought to
kept cool, quiet, and clean: his apartment, if pos-
ble, should be large, and frequently ventilated, by
ting in fresh air at the doors and windows. It ought
ewise to be sprinkled with vinegar, juice of lemon,
the like. His linen, bed-clothes, &c. should be
quently changed, and all his excrements immedi-
ly removed. Though these things have been re-
mmended before, we think it necessary to repeat
em here, as they are of more importance to the sick
an practitioners are apt to imagine.

MEDICINE.—In order to cure this fever, we must
deavour to bring it to a regular intermission. A
mit is generally of great service. Twenty grains of
ecacuanha will answer this purpose very well; but
ere it can be obtained, we would rather recommend
grain or two of tartar-emetic, with five or six grains
ipecacuanha, to be made into a draught, and given
a vomit. This may be repeated once or twice at
per intervals, if the sickness or nausea continue.

The body ought to be kept open either by clysters
gentle laxatives, as weak infusions of senna and
nna, small doses of electuary of senna, cream of
tar, tamarinds, stewed prunes, or the like; but all
ent or drastic purges are to be carefully avoided.

By this course the fever in a few days may generally
brought to a pretty regular or distinct intermission;
which case the Peruvian bark may be administered,
d it will seldom fail to perfect the cure. It is need-
s here to repeat the methods of giving the bark,
we have already had occasion frequently to men-
n them.

The most likely way to avoid this fever is, to use a
olesome and nourishing diet, to pay the most scru-
ous attention to cleanliness, to keep the body warm,
take sufficient exercise, and in hot countries to
id damp situations, night air, evening dews, and
like. In countries where it is endemical, the best
ventive medicine which we can recommend is, the

Peruvian bark, which may either be chewed, or infused in brandy or wine, &c. Some recommend smoking tobacco as very beneficial in marshy countries, both for prevention of this and intermitting fevers; but the habit of smoking should not be readily contracted.

To soldiers in camps, and in the various situations dangerous to health, where their duty leads them, every precaution should be used to guard them against these fevers. Thoughtless and careless of their persons, our brave defenders despise disease as much as they do danger; and as disorders of this kind are more to be dreaded than the approach of an enemy, the proper means of prevention should be strictly enforced by the superior officers and medical attendants.

The Small-Pox.

A FULL consideration of this disease is rendered needless, by the introduction of the *Cow-Pox;* which, if by experience it prove a complete and infallible preventive against the small-pox, is doubtless an improvement of immense importance. The invention and promulgation of a discovery, which combines ease, safety, and simplicity, deserves the highest praise; and, patronised as it is by the most distinguished medical characters, we may fondly expect in its general adoption the complete abolition of a disease which has heretofore proved so fatal to mankind.—This subject, however, will be fully treated of in a subsequent part of this work.

Of the Measles.

THE measles appeared in Europe about the same time with the small-pox, and have a great affinity to

that disease. They both came from the same quarter of the world, *Africa;* are both infectious, and seldom attack the same person more than once. The measles are most common in the spring season, and generally disappear in summer. The disease itself, when properly managed, seldom proves fatal: but its consequences often prove very troublesome.

Cause.—This disease proceeds from infection, and is more or less dangerous, according to the constitution of the patient, the season of the year, the climate, &c.

Symptoms.—The measles, like other fevers, are preceded by alternate fits of heat and cold, with sickness and loss of appetite. The tongue is white, but generally moist. There is a short cough, a heaviness of the head and eyes, drowsiness, and a running at the nose. Sometimes, indeed, the cough does not come before the eruption has appeared. There is an inflammation and heat in the eyes, accompanied with a defluxion of sharp rheum, and great acuteness of sensation, so that they cannot bear the light without pain. The eye-lids frequently swell so as to occasion blindness. The patient generally complains of his throat; and a vomiting or looseness often precedes the eruption. The stools in children are commonly greenish; they complain of an itching of the skin, and are remarkably peevish. Bleeding at the nose is common, both before and in the progress of the disease.

About the fourth day, small spots, resembling flea-bites, appear, first upon the face, then upon the breast, and afterwards on the extremities; these may be distinguished from the small-pox by their scarcely rising above the skin. The fever, cough, and difficulty of breathing, instead of being removed by the eruption, as in the small-pox, are rather increased; but the vomiting generally ceases.

About the sixth or seventh day from the time of sickening, the measles begin to turn pale on the face, and afterwards upon the body; so that by the ninth day they entirely disappear. The fever, however, and difficulty of breathing, often continue, especially

if the patient has been kept upon too hot a regimen. Petechiæ, or purple spots, may likewise be occasioned by this error.

When the eruption suddenly falls in, and the patient is seized with a delirium, he is in great danger. If the measles turn too soon of a pale colour, it is an unfavourable symptom, as are also great weakness, vomiting, restlessness, and difficulty of swallowing. Purple or black spots, appearing among the measles, are very unfavourable. When a continual cough, with hoarseness, succeeds the disease, there is reason to suspect an approaching consumption of the lungs.

Our business in this disease is to assist nature, by proper cordials, in throwing out the eruption, if her efforts be too languid; but when they are too violent, they must be restrained by evacuations, and cool diluting liquors, &c. We ought likewise to endeavour to appease the most urgent symptoms, as the cough, restlessness, and difficulty of breathing.

Regimen.—The cool regimen is quite necessary. The food too must be light, and the drink diluting. From the first attack of the measles, peculiar care should be taken to keep the patient moderately warm; as any obstruction of the matter usually thrown off by perspiration, would directly tend to inflammation of the lungs. The most suitable liquors are decoctions of liquorice with marshmallow roots and sarsaparilla, infusions of linseed, or of the flowers of elder, balm-tea, clarified whey, barley-water, and such like. These, if the patient be costive, may be sweetened with honey; or, if that should disagree with the stomach, a little manna may occasionally be added to them.

Medicine.—The measles being an inflammatory disease, without any critical discharge of matter, bleeding is sometimes necessary, especially when the fever runs high, with difficulty of breathing, and great oppression of the breast. But if the disease be of a mild kind, bleeding ought to be omitted.

Bathing the feet and legs frequently in lukewarm water, both tends to abate the violence of the fever, and to promote the eruption.

The patient is often greatly relieved by vomiting. When there is a tendency this way, it ought to be promoted by drinking luke-warm water, or weak camomile-tea.

When the cough is very troublesome, with dryness of the throat, and difficulty of breathing, the patient may breathe over the steam of warm water.

In case the measles should suddenly disappear, it will be necessary to support the patient with wine and cordials; and blistering-plaisters must be applied. When purple or black spots appear, the patient's drink should be sharpened with sulphuric acid diluted; and if the putrid symptoms increase, the Peruvian bark must be administered.

If looseness should come on during the measles, it should not be checked, unless it be violent; and even in that case, not suddenly. Five grains of rhubarb, with two of ipecacuanha powder, will in general for this purpose be sufficient. After the spots have disappeared, the patient should not be too hastily exposed to a cold air.

If much debility of the system should come on toward the end of the disease, and particularly if purple or black spots appear, the strength of the patient should be supported with cordials, beef-tea, and animal jellies, in order to assist nature in effecting a favourable termination. With this view, the rhatany-root, or Peruvian bark, will also be proper; which may be given in the following form:—

Take infusion of rhatany-root, or decoction of bark, six ounces; extract of liquorice, one drachm; diluted sulphuric acid, two drachms; compound tincture of bark, half an ounce. Mix. From a dessert to two table spoonfuls to be taken three or four times a day, according to the age of the patient, and urgency of the symptoms.

If the patient should be afflicted with a *violent* looseness, it should be checked or moderated by the following mixture:

Take of compound powder of chalk, three drachms; gum-arabic powder, two drachms; tincture of opium,

twenty drops; pure water, six ounces; essence of cinnamon, forty drops. Dissolve the gum-arabic in an ounce of water, and rub with it the compound powder; then add the other ingredients. A small table-spoonful of this mixture may be given to a child, six years old, (and to others more or less in proportion,) after every loose stool, unless the feces be dark and offensive, and the patient be not reduced in strength.

Of the Scarlet Fever.

The scarlet fever is so called from the colour of the patient's skin, which appears as if it were tinged with red wine. It happens at any season of the year, but is most common towards the end of summer, at which time it often seizes whole families: children and young persons are most subject to it.

It begins, like other fevers, with coldness and shivering, without any violent sickness. Afterwards the skin is covered with red spots, which are broader, more florid, and less uniform, than the measles. They continue two or three days, and then disappear; after which the cuticle, or scarf-skin, falls off.

There is seldom any occasion for medicine in this disease, unless it be attended with an ulcerated throat; it then requires medical skill to preserve the patient. But when it is a simple scarlet fever, it will be sufficient for the patient to keep within doors, to abstain from flesh, strong liquors, and cordials, and to drink freely of cool diluting liquors. If the fever runs high, the body must be kept gently open by emollient clysters, or small doses of nitre and rhubarb. Half a scruple of the former with five grains of the latter, may be taken thrice a day; or oftener, if necessary.

Children and young persons are sometimes seized at the beginning of this disease with a kind of stupor, and epileptic fits. In this case, the feet and legs should be bathed in warm water, a large blistering-plaister be applied to the neck, and a dose of the

syrup of poppies given every night till the patient recovers.

The scarlet fever, however, is not always of so mild a nature. It is sometimes attended with putrid or malignant symptoms, in which case it is always dangerous. In the malignant scarlet fever, the patient is not only affected with coldness and shivering, but with languor, sickness, and great oppression; to these succeed excessive heat, nausea, and vomiting, with a soreness of the throat; the pulse is extremely quick, but small and depressed; the breathing frequent and laborious; the skin hot, but not quite dry; the tongue moist, and covered with a whitish mucus; the tonsils inflamed and ulcerated. When the eruption appears, it brings no relief; on the contrary, the symptoms generally grow worse, and fresh ones come on, as purging, delirium, &c.

Not a moment should be lost when these symptoms appear. A vomit of tartar emetic should be given instantly, and the morning after an opening medicine of rhubarb and magnesia, or of salts and senna. The clearing the stomach and bowels, on the first attack of this fever, is of the greatest importance, especially when the above symptoms are early apparent.

If there should be evidence of the fever's taking a putrid turn, the treatment should be the same as in a typhus fever.—*See Typhus Fever.*

Of the Bilious Fever.

When a continual, remitting, or intermitting fever is accompanied with a frequent or copious evacuation of bile, either by vomit or stool, the fever is denominated bilious. In Britain the bilious fever generally makes its appearance about the end of summer, and ceases towards the approach of winter. It is most frequent and fatal in warm countries, especially where the soil is marshy, and when great rains are succeeded by sultry heats. Persons who work without doors

lie in camps, or who are exposed to the night air, are most liable to this kind of fever.

If there are symptoms of inflammation at the beginning of this fever, it will be necessary to put the patient upon the cool diluting regimen recommended in the inflammatory fever. The saline draught may likewise be frequently administered, and the patient's body be kept open by clysters and mild purgatives. But if the fever should remit, or intermit, a vomit may be administered, and, if the body be bound, a gentle purge; after which the Peruvian bark will generally complete the cure.

In case of a violent looseness, the patient must be supported with chicken-broths, jellies of hartshorn, and the like; and he may use the compound chalk-mixture, mentioned before under *Measles*. If a bloody flux should accompany this fever, it must be treated in the manner recommended under the article of *Dysentery*.

When there is a burning heat, and the patient does not sweat, that evacuation may be promoted by giving him, three or four times a day, a table-spoonful of solution of acetate of ammonia, in a cup of his ordinary drink.

If the bilious fever be attended with the nervous, malignant, or putrid symptoms, which is sometimes the case, the patient must be treated in the same manner as directed under these diseases.

After this fever, proper care is necessary to prevent a relapse. For this purpose, the patient, especially toward the end of autumn, ought to continue the use of the Peruvian bark for some time after he is well. He should likewise abstain from all trashy fruits, new liquors, and every kind of flatulent aliment.

We cannot forbear here repeating, what we have so often endeavoured to inculcate, namely, the impossibility of prescribing for a fever, without attending to the particulars of the patient's case. Not only can no general rule or universal medicine be recommended, but the most able physician cannot pretend to prescribe for a person in this disease, without personally

judging of the patient's situation. Bleeding may certainly be beneficial when the symptoms run very high, with a full hard pulse, and other signs of inflammation; but to judge of this requires medical skill.

Of the Erysipelas, or St. Anthony's Fire.

This disease, which in some parts of Britain is called *the rose*, in others *St. Anthony's fire*, attacks persons at any period of life, but is most common between the age of thirty and forty. Persons of a sanguine and plethoric habit are most liable to it. It often attacks young people, and pregnant women; and such as have once been afflicted with it are very subject to frequent returns of it. Sometimes it is a primary disease, and at other times only a symptom of some other malady. Every part of the body is liable to be attacked by an erysipelas; but it most frequently seizes the legs or face, especially the latter. It is most common in autumn, or when hot weather is succeeded by cold and wet.

Causes.—The erysipelas may be occasioned by violent passions or affections of the mind; as fear, anger, &c. When the body has been heated to a great degree, and is immediately exposed to the cold air, so that the perspiration is suddenly checked, an erysipelas will often ensue. It may also be occasioned by drinking to excess, by continuing too long in a warm bath, or by any thing that over-heats the blood. If any of the natural evacuations be obstructed, or be in too small quantity, either of these may cause an erysipelas. The same effect will follow from the sudden stoppage of artificial evacuations; as issues, setons, or the like.

Symptoms.—The erysipelas attacks with a shivering, thirst, loss of strength, pain in the head and back, heat, restlessness, and a quick pulse; to which may be added, vomiting, and sometimes a delirium. On the second, third, or fourth day, the part swells, be-

comes red, and small pustules appear, at which time the fever generally abates.

When the erysipelas seizes the foot, the parts contiguous swell, the skin shines; and, if the pain be violent, it will ascend to the leg, and will not bear to be touched.

When it attacks the face, it swells, appears red, and the skin is covered with small pustules filled with clear water. One or both eyes are generally closed with a swelling; and there is a difficulty of breathing. If the mouth and nostrils be very dry, and the patient drowsy, there is reason to suspect an inflammation of the brain.

If the erysipelas affects the breast, it swells and becomes exceedingly hard, with great pain, and is apt to suppurate. There is a violent pain in the arm-pit, on the side affected, where an abscess is often formed.

If in a day or two the swelling subsides, the heat and pain abate, the colour of the part turns yellow, and the cuticle breaks and falls off in scales, the danger is over.

This disease seldom proves fatal; yet when the habit is impaired, and the legs swell to an enormous size, the complaint then becomes difficult of cure; much, however, depends upon the constitution of the patient. To persons far advanced in years, and of a scorbutic habit, and whose humours are tainted by a bad course of diet, it has sometimes proved incurable.

When the erysipelas is large, deep, and affects a very sensible part of the body, the danger is great. If the red colour changes into a livid or black, it is likely to end in a mortification.

Regimen.—In the erysipelas, the patient must neither be kept too hot nor too cool, as either of these extremes will tend to make it retreat, which is always to be guarded against. When the disease is mild, it will be sufficient to keep the patient within doors, without confining him to his bed, and to promote the perspiration by diluting liquors, &c.

The diet ought to be slender, and of a moderately cooling and moistening quality; as groat-gruel, panado,

hicken or barley-broth, with cooling herbs and fruits, cc. avoiding flesh, fish, strong drink, spices, pickles, nd all other things that may heat and inflame the lood; the drink may be barley water, an infusion of lder-flowers, common whey, and such like.

But if the pulse be low, and the spirits sunk, the pa- ient must be supported with negus, and other things f a cordial nature. His food may be sago-gruel, a ittle wine, and nourishing broths, taken in small quan- ities, and often repeated. Great care, however, must e taken not to over-heat him.

MEDICINE.—In this disease much mischief is often lone by medicine, especially by external applications. Almost all ointments, salves, and plaisters, being of a greasy nature, tend rather to obstruct and repel, than promote any discharge from the part. At the begin- ning of this disease, it is neither safe to promote a suppuration, nor to repel the matter too quickly. The erysipelas in many respects resembles the gout, and s to be treated with the greatest caution. Fine wool, r very soft flannel, are the safest applications to the art. These not only defend it from the external air, ut likewise promote the perspiration, which has a reat tendency to carry off the disease.

It is common to bleed in the erysipelas; but this equires very great caution. If, however, the fever be igh, the pulse hard and strong, and the patient vigor- us, it may be proper to bleed; but the quantity must e regulated by these circumstances, and the operation e repeated, or not, as the symptoms may require.

Bathing the feet and legs frequently in warm water, when the disease attacks the face or brain, has an ex- ellent effect. It tends to make a derivation from the ead, and seldom fails to relieve the patient. When athing proves ineffectual, poultices, or sharp sina- isms, may be applied to the soles of the feet, for the ame purpose.

In cases where bleeding is requisite, it is likewise ecessary to keep the body open. This may be effected y emollient clysters, or small doses of nitre and rhu- arb. Some, indeed, recommend very large doses of

nitre in the erysipelas; but nitre seldom sits easy on the stomach, when taken in large doses. It is, however, one of the best medicines when the fever and inflammation run high. Fifteen grains of it, with four or five grains of rhubarb, may be taken in the patient's ordinary drink, several times a day.

When the erysipelas leaves the extremities, and seizes the head, so as to occasion a delirium or stupor, it is peculiarly necessary to open the body. If clysters and mild purgatives fail to have this effect, stronger ones must be given. Blistering-plaisters must likewise be applied to the neck, or behind the ears, and sharp cataplasms laid to the soles of the feet.

When the inflammation cannot be discussed, and the part has a tendency to ulcerate, it will then be proper to promote suppuration, which may be done by the application of ripening poultices, warm fomentations, and such like.

When the black, livid, or blue colour of the part shews a tendency to mortification, the Peruvian bark must be administered. It may be taken with acids, or in any other form more agreeable to the patient. It must not, however, be trifled with, as the patient's life is at stake. A drachm may be given every two hours, if the symptoms be threatening, and cloths dipped in warm camphorated spirits of wine, or the tincture of myrrh and aloes, may be applied to the part, and frequently renewed. It may likewise be proper, in this case, to apply poultices of the bark, or to foment the part affected with a strong decoction of it.

In what is commonly called the *Scorbutic Erysipelas*, which continues for a considerable time, it will only be necessary to give gentle laxatives, and such things as purify the blood, and promote the perspiration. Thus, after the inflammation has been checked by opening medicines, the decoction of woods may be drank, after which a course of bitters will be proper.

Such as are liable to frequent attacks of the erysipelas, ought carefully to guard against all violent passions; to abstain from strong liquors, and all fat, viscid

nd highly nourishing food. They should likewise ake sufficient exercise, carefully avoiding the extremes f heat or cold. Their food should consist chiefly of nilk, and such fruits, herbs, and roots, as are of a cool- ng quality; and their drink ought to be small-beer, vhey, butter-milk, and such like. They should never uffer themselves to be long costive. If that cannot be revented by suitable diet, it will be proper to take requently a gentle dose of rhubarb, cream of tartar, lectuary of senna, or some other mild purgative.

The application of poultices, embrocations, and fo- nentations, in cases of erysipelas, can only be service- ible where the suppuration is inevitable. Absorbents, o take up the moisture and cool the skin, are greatly referable: and for this purpose we would recommend air-powder, spread on a soft rag, and laid over the parts affected two or three times a day; an applica- ion attended with no danger, and extremely gratify- ng to the patient.

Erysipelas, when driven from the part affected, is pt to fly to another, where it may be more dangerous. Applications, especially violent ones, for its removal, hould be used with caution, and not without proper dvice.

Of the Phrenitis, or Inflammation of the Brain.

This disease is very common in warm climates, and s most incident to persons about the prime or vigour f life. The passionate, the studious, and those whose nervous system is irritable in a high degree, are most iable to it.

Causes.—This malady is often occasioned by night- watching, especially when joined with hard study; it may likewise proceed from hard drinking, anger, grief, r anxiety. It often proceeds from the stoppage of usual evacuations; as the bleeding piles in men, the customary discharges of women, &c. Such persons as imprudently expose themselves to the heat of the sun,

especially by sleeping without doors in a hot season, with their heads uncovered, are often suddenly seized with an inflammation of the brain, so as to awake quite delirious. When repellants are imprudently used in an erysipelas, an inflammation of the brain is sometimes the consequence. It may likewise be occasioned by external injuries, as blows or bruises upon the head, &c.

Symptoms.—Inflammation of the brain commences with rigours, tremor of the extremities, a sense of lassitude, and stupor. The veins of the head soon become distended, and the arteries beat with increased force; the eyes are often steadily fixed, fierce, and sometimes sparkle; the voice shrill, and language incoherent; a proneness to anger; and at times a determined resolution to walk about the room; the pulse is generally languid, and the extremities cold: on dosing, the patient generally talks or mutters a great deal, with a chattering of the teeth, trembling of the hands, and almost constant motion of the fingers, which seem employed to pick or gather something, and often do gather the nap of the bed-clothes. After the fourth day, the delirium is more continual and furious; with watching, convulsions, and hiccup; the feces pale, and at length, with the urine, are discharged involuntarily; the pupils of the eyes are dilated, and other symptoms of approaching dissolution ensue: or critical sweats and looseness come on, or bleeding at the nose, or piles, which are of a more propitious import.

As this disease often proves fatal in a few days, it requires the most speedy applications. When it is prolonged or improperly treated, it sometimes ends in madness, or a kind of stupidity which continues for life.

In the cure, two things are chiefly to be attended to, *viz.* to lessen the quantity of blood in the brain, and to retard the circulation towards the head.

Regimen.—The patient ought to be kept very quiet. Company, noise, and every thing that affects the senses, or disturbs the imagination, increases the disease. Even too much light is hurtful: for which rea-

son the patient's chamber ought to be a little darkened, and he should neither be kept too hot nor cold. It is not, however, necessary to exclude the company of an agreeable friend, as this has a tendency to soothe and quiet the mind. Neither ought the patient to be kept too much in the dark, lest it should occasion a gloomy melancholy, which is often the consequence of this disease.

The patient must, as far as possible, be soothed in every thing. Contradiction will ruffle his mind, and increase his malady. Even when he calls for things which are not to be obtained, or which might prove hurtful, he is not to be positively denied them, but rather put off by some excuse. A little of any thing that the mind is set upon, though not quite proper, will hurt the patient less than a positive refusal. In a word, whatever he was delighted with when in health, may here be tried; as pleasing anecdotes, soft music, or whatever has a tendency to soothe the passions, and compose the mind.

The aliment ought to be light, consisting chiefly of farinaceous substances; as panada and water-gruel, sharpened with jelly of currants, or juice of lemons, ripe fruits roasted or boiled, jellies, preserves, &c. The drink small, diluting, and cooling; as whey, barley-water, or decoctions of barley and tamarinds, which latter not only render the liquor more palatable, but are more beneficial, as they are of an opening nature.

MEDICINE.—In an inflammation of the brain, the patient is greatly relieved by a free discharge of blood from the nose. When this comes of its own accord, it is by no means to be stopped, but rather promoted, by applying cloths dipped in warm water to the part. When bleeding at the nose does not happen spontaneously, it may be provoked by putting a straw, or any other sharp body, up the nostril.

Bleeding in the temporal arteries speedily relieves the head; but as this operation cannot always be performed, we would recommend in its stead bleeding in the jugular veins. When the patient's pulse and spirits are so low that he cannot bear bleeding with the

lancet, leeches may be applied to the temples. These, applied to the part affected, generally give immediate relief.

A discharge of blood from the hæmorrhoidal veins, is likewise of great service, and ought by all means to be promoted. If the patient has been subject to the bleeding piles, and that discharge has been stopped, every method must be tried to restore it; as the application of leeches to the parts, sitting over the steams of warm water, sharp clysters, or suppositories, made of honey, aloes, and rock-salt.

If the inflammation of the brain be occasioned by the stoppage of evacuations, either natural or artificial, as the menses, issues, setons, or such like, all means must be used to restore them as soon as possible, or to substitute others in their stead.

The patient's body must be kept open by clysters or purges; and small quantities of nitre ought frequently to be mixed with his drink. A drachm or more, if the case be dangerous, may be used in the space of twenty-four hours. Or,

Take of senna-leaves, two drachms, infuse in a quarter of a pint of boiling water for half an hour, then strain, and add sulphate of magnesia, half an ounce; compound tincture of senna, an ounce. Three table-spoonfuls to be taken every two or three hours, till it operates.

The head should be shaved, and frequently rubbed with vinegar and rose-water. Cloths dipped in this mixture may likewise be applied to the temples. The feet ought frequently to be bathed in lukewarm water, and soft poultices of bread and milk may be kept constantly applied to them.

If the disease proves obstinate, and does not yield to these medicines, it will be necessary to apply a blistering-plaister to the whole head.

We again observe, that this malady requires particular attention that the patient be kept as easy, composed, and tranquil as possible; and an attentive and sensible nurse will here frequently be found as serviceable as the most enlightened physician. The smallest irri-

tation, even light, noise, or any thing that may suddenly or strongly impress the senses, is carried so rapidly to the brain, as to increase the inflammation, and disorder even the organs by which it was conveyed.

Of the Ophthalmia, or Inflammation of the Eyes.

This disease may be occasioned by external injuries; as blows, burns, bruises, and similar causes. It may likewise proceed from dust, quicklime, or other substances, getting into the eyes. It is often caused by the stoppage of customary evacuations; as the healing of old sores, drying up of issues, the suppressing of gentle morning sweats, or of the sweating of the feet, &c. Long exposure to the night air, especially in cold northerly winds, or whatever suddenly checks the perspiration, especially after the body has been much heated, is very apt to cause an inflammation of the eyes. Viewing snow or other white bodies for a long time, or looking stedfastly at the sun, a clear fire, or any bright object, may likewise occasion this malady. A sudden transition from darkness to very bright light, will often have the same effect.

Scarcely any thing more certainly occasions an inflammation of the eyes than night-watching, especially reading or writing by candle-light. Drinking spirituous liquors, and excess of venery, are likewise very hurtful to the eyes. The acrid fumes of metals, and of several kinds of fuel, are also pernicious. Sometimes an inflammation of the eyes proceeds from a venereal taint, and often from a scrophulous or gouty habit. It may be occasioned by moist air, or living in low damp houses, especially in persons who are not accustomed to such situations. In children it often proceeds from imprudently drying up of scabbed heads, a running behind the ears, or any other discharge of that kind. Inflammations of the eyes often succeed the measles, especially in children of a scrophulous habit.

Symptoms.—An inflammation of the eyes is attended with acute pain, heat, redness, and swelling. The patient is not able to bear the light, and sometimes he feels a pricking pain, as if his eyes were pierced with a thorn. Sometimes he imagines his eyes are full of motes, or thinks he sees flies dancing before him. The eyes are filled with a scalding rheum, which rushes forth in great quantities, whenever the patient attempts to look up. The pulse is generally quick and hard, with some degree of fever. When the disease is violent, the neighbouring parts swell, and there is a throbbing or pulsation in the temporal arteries, &c.

A slight inflammation of the eyes, especially from an external cause, is easily cured; but when the disease is violent, and continues long, it often leaves specks upon the eyes, or dimness of sight, and sometimes blindness.

If the patient be seized with a looseness, it has a good effect; and when the inflammation passes from one eye to another, as it were by infection, it is no unfavourable symptom. But when the disease is accompanied with a violent pain in the head, and continues long, the patient is in danger of losing his sight.

Regimen.—The diet, unless in scrophulous cases, can hardly be too spare, especially at the beginning. The patient must abstain from every thing of a heating nature. His food should consist chiefly of mild vegetables, weak broths, and gruels. His drink may be barley-water, balm-tea, common whey, and such like.

The patient's chamber must be darkened, or his eyes shaded by a cover, so as to exclude the light, but not to press upon the eyes. He should not look at a candle, the fire, or any luminous object; and ought to avoid all smoke, as the fumes of tobacco, or any thing that may cause coughing, sneezing, or vomiting. He should be kept quiet, avoiding all violent efforts, either of body or mind, and encouraging sleep as much as possible.

Medicine.—Bleeding, in a violent inflammation of the eyes, is always necessary. This should be performed as near the part affected as possible. An adult may

lose ten or twelve ounces of blood from the jugular vein, and the operation may be repeated according to the urgency of the symptoms. If it should not be convenient to bleed in the neck, the same quantity may be et from the arm, or any other part of the body.

Leeches are often applied to the temples, or under the eyes, with good effect. The wounds must be suffered to bleed for some hours, and if the bleeding stop soon, it may be promoted by the application of cloths dipt in warm water. In obstinate cases, it will be necessary to repeat this operation several times.

Opening and diluting medicines are by no means to be neglected. The patient may take a small dose of cream of tartar, every second or third day, or a decoction of tamarinds with senna. If these be not agreeable, gentle doses of rhubarb and nitre, a little confection of senna, or any other mild purgative, will answer the same end. The patient at the same time must drink freely of water-gruel, tea, whey, or any other weak diluting liquor. He ought likewise to take at bed-time a large draught of very weak wine-whey, in order to promote perspiration. His feet and legs must frequently be bathed in warm water, and his head shaved twice or thrice a week, and afterwards washed in cold water. This has often a remarkably good effect.

If the inflammation does not yield to these evacuations, blistering-plaisters must be applied to the temples, behind the ears, or upon the neck, and kept open for some time by the mild blistering-ointment.

When the disease has been of long standing, very extraordinary effects have been produced by a seton in the neck, or between the shoulders, especially the latter. It should be put upwards and downwards, or in the direction of the spine, and in the middle between the shoulder-blades. It may be dressed twice a day with yellow basilicon.

When the heat and pain of the eyes are very great, a poultice of bread and milk, softened with sweet oil or fresh butter, may be applied to them, at least all

night; and they may be bathed with warm milk and water in the morning.

If the patient cannot sleep, which is sometimes the case, he may take twenty or five-and-twenty drops of laudanum, or two spoonfuls of the syrup of poppies, every night, more or less, according to his age, or the violence of the symptoms.

After the inflammation has gone off, if the eyes still remain weak and tender, they may be bathed every night and morning with cold water and a little brandy, three parts of the former to one of the latter. A method should be contrived, by which the eye may be quite immersed in the brandy and water, and where it should be kept for some time. I have generally found this, or cold water and vinegar, as good a strengthener of the eyes as any of the most celebrated collyriums.

When an inflammation of the eyes proceeds from a scrophulous habit, it generally proves very obstinate. In this case, the patient's diet must not be too low, and he may be allowed to drink small negus, or now and then a glass of wine. The most proper medicine is the Peruvian bark, which may be either given in substance, or prepared in the following manner:

Take an ounce of the bark, in powder, with two drachms of Winter's bark, and boil them in an English quart of water to a pint: when it has boiled nearly long enough, add half an ounce of liquorice-root sliced. Let the liquor be strained. Two, three, or four table-spoonfuls, according to the age of the patient, may be taken three or four times a day. It is impossible to say how long this medicine should be continued, as the cure is sooner performed in some than in others: but, in general, it requires a considerable time to produce any lasting effects.

Dr. Cheyne says, "that Ethiop's mineral never fails in obstinate inflammations of the eyes, even scrophulous ones, if given in a sufficient dose, and duly persisted in." There is no doubt but this may be of singular service in ophthalmias of long continuance.

If the eyes be much inflamed, the following eye-water will be very proper:

Take solution of acetate of lead, fifteen drops; white wine vinegar, two drachms; tincture of opium, forty drops; water, eight ounces. Mix. To be frequently applied, by wetting folds of fine old linen, and putting them over the affected eye or eyes.

But if a film or speck be left on the eye, after the inflammation is removed, use the following one:

Take of blue vitriol (now called sulphate of copper), one grain; dissolve in four ounces of distilled water; tincture of opium, thirty drops. Drop a little between the eye-lids of the affected eye, three or four times a day.

Those who are liable to frequent returns of this disease, ought constantly to have an issue in one or both arms. Purging in the spring and autumn will be very beneficial to such persons. They ought likewise to live with the greatest regularity, avoiding strong liquors, and every thing of a heating quality. Above all, let them avoid the night air and late studies.

Of the Quinsy, or Inflammation of the Throat.

This disease is very common in Britain, and is sometimes attended with danger. It prevails in the winter and spring; and, if fatal, it is to young people of a sanguine temperature.

Causes.—In general, it proceeds from the same causes as other inflammatory disorders, *viz.* an obstructed perspiration, or whatever heats or inflames the blood. An inflammation of the throat is often occasioned by omitting some part of the covering usually worn about the neck, by drinking cold liquor when the body is warm, by riding or walking against a cold northerly wind, or any thing that greatly cools the throat, and parts adjacent. It may likewise proceed from the neglect of purging, or any customary evacuation.

Singing, speaking aloud and long, or whatever strains the throat, may likewise cause an inflammation of that organ. The quinsy has proved fatal to jovial companions, who, after sitting long in a warm room drinking hot liquors, and singing with vehemence, were so imprudent as to go abroad in the cold night air. Sitting with wet feet, or keeping on wet clothes, are very apt to occasion this malady. It is likewise frequently occasioned by continuing long in a moist place, sitting near an open window, sleeping in a damp bed, sitting in a room that has been newly plastered, &c.

Acrid or irritating food may likewise inflame the throat, and occasion a quinsy. It may also proceed from bones, pins, or other sharp substances, sticking in the throat, or from the caustic fumes of metals or minerals, as arsenic, antimony, &c. taken in by the breath. This disease is sometimes epidemical and infectious.

Symptoms.—The inflammation of the throat is evident from inspection, the parts appearing red and swelled; besides, the patient complains of pain in swallowing. His pulse is quick and hard, with other symptoms of a fever. If blood be let, it is generally covered with a tough coat of a whitish colour, and the patient spits a tough phlegm. As the swelling and inflammation increase, the breathing and swallowing become more difficult, the pain affects the ears, the eyes generally appear red, and the face swells. The patient is often obliged to keep himself in an erect posture, being in danger of suffocation; there is a constant nausea or inclination to vomit; and the drink, instead of passing into the stomach, is often returned by the nose. The patient is sometimes, though very seldom, starved at last, merely from an inability to swallow any kind of food.

When the breathing is laborious, with straitness of the breast, and anxiety, the danger is great. Though the pain in swallowing be very great, yet while the patient breathes easy, there is not much danger. An external swelling is no unfavourable symptom; but if it suddenly falls, and the disease affects the breast,

the danger is very great. When a quinsy is the consequence of some other disease, which has already weakened the patient, his situation is critical. A frothing at the mouth, with a swelled tongue, a pale ghastly countenance, and coldness of the extremities, are fatal symptoms.

Regimen.—The regimen in this disease is, in all respects, the same as in the pleurisy or peripneumony. The food must be light and in small quantity, and the drink plentiful, weak, and diluting, mixed with acids.

It is highly necessary that the patient be kept easy and quiet. Violent affections of the mind, or great efforts of the body, may prove fatal. He should not even attempt to speak, but in a low voice. Such a degree of warmth as to promote a constant gentle sweat is proper. When the patient is in bed, his head ought to be raised a little higher than usual.

It is peculiarly necessary that the neck be kept warm, with folds of soft flannel wrapt round it. That alone may remove a slight complaint of the throat, especially if applied in due time. When the throat has been thus wrapped up, it must not be suddenly exposed to the cold air, but a handkerchief, or a piece of flannel, be kept about it, till the inflammation be removed, and the parts be strengthened.

The jelly of black currants is a medicine very much in esteem for complaints of the throat; and indeed it is of some use. It should be almost constantly kept in the mouth, and swallowed down leisurely. It may likewise be mixed with the patient's drink, or taken any other way. When *it* cannot be obtained, the jelly of red currants, or of mulberries, may be used in its stead.

Gargles for the throat are very beneficial. They may be made of sage-tea, with a little vinegar and honey, or by adding to half an English pint of pectoral decoction, two or three spoonfuls of honey, and the same quantity of currant-jelly. This may be used three or four times a day; and, if the patient be troubled with tough viscid phlegm, the gargle may be

rendered more sharp and cleansing, by adding to it a tea-spoonful of the liquor of ammonia. Some recommend gargles made of the decoction of the leaves or bark of the black-currant bush; but where the jelly can be had, these are unnecessary.

There is no disease wherein the benefit of bathing the feet and legs in warm water is more apparent; that practice ought therefore never to be neglected. If people were careful to keep warm, to wrap up their throats with flannel, to bathe their feet and legs in warm water, and to use a spare diet, with diluting liquors, at the beginning of this disease, it would seldom proceed to a great height, or be attended with any danger; but when these precautions are neglected, and the disease becomes violent, more powerful means are necessary.

MEDICINE.—As the inflammation, from the delicate structure of the parts, soon advances to suppuration, *active* means should be *speedily* employed for its resolution. The patient should take half an ounce, or more, of sulphate of magnesia, dissolved in whey or common water; and, after its operation, two table-spoonfuls, every three hours, of the following mixture:

Take kali, one drachm; juice of lemon, one ounce and half; spirit of nitrous ether, three drachms; mint-water, six ounces; a little sugar, or honey, to make it pleasant.

I have often known very good effects from a bit of purified nitre, held in the mouth, and swallowed down as it melted. This promotes the discharge of saliva; by which means it answers the end of a gargle, while at the same time it abates the fever, by promoting the discharge of urine. Or, the patient may use either of the following gargles:

Take of purified nitre, one drachm; gum-arabic, in powder, three drachms; water, six ounces.

Take of red rose-leaves, one drachm; boiling water, half a pint; when cold, strain; and add sulphuric acid, fifteen drops.

The throat ought likewise to be rubbed twice or thrice a day, with a little of the volatile liniment.

This seldom fails to produce good effects. At the same time the neck ought to be carefully covered with wool or flannel, to prevent the cold from penetrating the skin, as this application renders it very tender.

Some recommend gum-guaiacum as a specific in this disease. A scruple of the gum in powder may be made into an electuary with the rob of elderberries, or the jelly of currants, for a dose, and repeated occasionally.

Blistering, in violent inflammations of the throat, is very beneficial; and, in bad cases, it will be necessary to lay a blistering-plaister quite across the throat, so as to reach from ear to ear. After the plaister is taken off, the part ought to be kept running by the application of issue-ointment, till the inflammation is gone; otherwise, upon its drying up, the patient will be in danger of a relapse.

When the inflammation and swelling continue, and it is evident that a suppuration will ensue, it ought to be promoted by drawing the steam of warm water into the throat, through a tunnel or the like. Soft poultices ought likewise to be applied outwardly, and the patient may keep a roasted fig constantly in his mouth.

It sometimes happens, before the tumor breaks, that the swelling is so great, as entirely to prevent any thing from getting down into the stomach. In this case, the patient must be supported in some other way. This may be done by nourishing clysters, of broth or gruel, with milk, &c. Patients have often been supported by these for several days, till the tumour has broke; and afterwards they have soon recovered.

Not only the swallowing, but the breathing may be prevented by the tumor. In this case, nothing can save the patient's life, but opening the *trachæa* or wind-pipe. As that has been often done with success, no person, in such desperate circumstances, ought to hesitate a moment about the operation; but as it can only be performed by a surgeon, it is not necessary here to give any directions about it.

When a difficulty of swallowing is not attended with pain or inflammation, it is generally owing to an obstruction of the glands about the throat, and only requires that the part be frequently gargled with something that may gently stimulate the glands, as a decoction of figs, with vinegar and honey; to which may be added a little mustard, or a small quantity of spirits. But this gargle is never to be used where there are signs of an inflammation.

Those who are subject to inflammations of the throat, in order to avoid that disease, ought to be temperate. Such as do not choose to observe this rule, must have frequent recourse to purging, and other evacuations, to discharge the superfluous humours. They ought, likewise, to beware of catching cold, and should abstain from aliment and medicines of an astringent or stimulating nature.

Violent exercise, by increasing the motion and force of the blood, is apt to occasion an inflammation of the throat, especially if cold liquor be drank immediately after it, or the body be suffered suddenly to cool.—Those who would avoid this disease ought, therefore, after speaking aloud, singing, running, drinking warm liquor, or doing any thing that may strain the throat, or increase the circulation of the blood towards it, to take care to cool gradually, and to wrap some additional covering about their necks.

I have often known persons who had been subject to sore throats, entirely freed from that complaint by only wearing a ribband, or a piece of flannel, constantly about their necks, or by wearing thicker shoes, a flannel waistcoat, or the like. These may seem trifling, but they have great effect. There is danger indeed in leaving them off, after persons have been accustomed to them; but surely the inconveniency of using such things for life, is not to be compared with the danger which may attend the neglect of them.

Of the Malignant Quinsy, or Putrid Ulcerous Sore Throat.

This kind of quinsy is but little known in the northern parts of Britain, though it has been fatal in the more southern counties. Children are more liable to it than adults, females than males, and the delicate than those who are more hardy and robust. It prevails chiefly in autumn, and is most frequent after a long course of damp or sultry weather.

Causes.—This disease is supposed to be produced by a peculiar specific contagion, and to be highly infectious; but it is probably first and generally occasioned by some atmospheric cause. It affects all ages, occurs at all seasons, and prevails in all situations. Nevertheless, people ought to be upon their guard against going near such patients as labour under this disorder, as by that means they endanger not only their own lives, but likewise those of their friends and connexions. Whatever tends to produce putrid or malignant fevers, may likewise occasion the putrid ulcerous sore throat; as unwholesome air, damaged provisions, neglect of cleanliness, &c.

Symptoms.—It begins with alternate fits of shivering and heat. The pulse is quick, but low and unequal, and generally continues so through the whole course of the disease. The patient complains greatly of weakness, and oppression of the breast; his spirits are low, and he is apt to faint away when set upright; he is troubled with a nausea, and often with a vomiting or purging. The two latter are most common in children. The eyes appear red and watery, and the face swells. The urine is at first pale and crude, but as the disease advances, it turns more of a yellowish colour. The tongue is white, generally moist, which distinguishes this from an inflammatory disease. Upon looking into the throat, it appears swelled, and of a florid red colour. Pale or ash-coloured spots, however, are here and there interspersed, and sometimes one broad patch or spot, of an irregular figure, and pale white colour, surrounded with florid red, only

appears. These whitish spots or sloughs cover so many ulcers.

An efflorescence, or eruption upon the neck, arms, breast, and fingers, about the second or third day, is a common symptom of this disease. When it appears, the purging and vomiting generally cease.

There is often a slight degree of delirium, and the face frequently appears bloated, and the inside of the nostrils red and inflamed. The patient complains of a disagreeable putrid smell, and his breath is very offensive.

The putrid ulcerous sore throat may be distinguished from the inflammatory, by the vomiting and looseness with which it is generally ushered in; the foul ulcers in the throat, covered with a whitish or livid coat; and by the excessive weakness of the patient; with other symptoms of a putrid fever.

Unfavourable symptoms are—an obstinate purging, extreme weakness, dimness of the sight, a livid or black colour of the spots, and frequent shiverings, with a weak fluttering pulse. If the eruption upon the skin suddenly disappears, or becomes of a livid colour, with a discharge of blood from the nose or mouth, the danger is very great.

If a gentle sweat break out about the third or fourth day, and continue with a slow, firm, and equal pulse; if the slough casts off in a kindly manner, and appears clean and kindly at the bottom; and if the breathing is soft and free, with a lively colour of the eyes, there is reason to hope for a salutary crisis.

Regimen.—The patient must be kept quiet, and, for the most part, in bed, as he will be apt to faint when taken out of it. His food must be nourishing and restorative, as sago-gruel with wine, jellies, strong broths, &c. His drink ought to be generous, and of an antiseptic quality, as red wine negus, white wine whey, and such like.

Medicine.—The medicine in this kind of quinsy is entirely different from that which is proper in the inflammatory. All evacuations, as bleeding, purging, &c. which weaken the patient, must be avoided. Cool-

ing medicines, as nitre and cream of tartar, are likewise hurtful. Strengthening cordials alone can be used with safety, and these ought never to be neglected.

If, at the beginning, there is a great inclination to vomit, the patient should take a scruple of ipecacuanha powder, in a little tea; but if the person be very delicate, fifteen grains may be sufficient. This will cleanse the stomach, and lessen the tendency of the throat to putridity.

If the disease be mild, the throat may be gargled with an infusion of sage and rose leaves, to a gill of which may be added a spoonful of honey, and as much vinegar as will make it agreeably acid; but when the symptoms are urgent, the sloughs large and thick, and the breath very offensive, the following gargle may be used.

To six or seven ounces of the pectoral decoction, when boiling, add half an ounce of the contrayerva root; let it boil for some time, and afterwards strain the liquor, to which add two ounces of white wine vinegar, an ounce of fine honey, and an ounce of the tincture of myrrh. This ought not only to be used as a gargle, but a little of it should be frequently injected with a syringe, to clean the throat, before the patient takes any meat or drink. This method is peculiarly necessary for children, who cannot use a gargle.

It will be of great benefit if the patient frequently receives into his mouth, through an inverted funnel, the steams of warm vinegar, myrrh, and honey.

But when the putrid symptoms run high, and the disease is attended with danger, the only medicine that can be depended upon is the Peruvian bark. It may be taken in substance, if the patent's stomach will bear it. If not, an ounce of bark, grossly powdered, with two drachms of Virginian snake-root, may be boiled in an English pint and a half of water to half a pint, to which a tea-spoonful of the elixir of vitriol may be added, and an ordinary tea-cupful of it taken every three or four hours. Blistering-plaisters are very be-

neficial in this disease, especially when the patient's pulse and spirits are low. They may be applied to the throat, behind the ears, or upon the back part of the neck.

Should the vomiting, which frequently comes on, with looseness, about the third or fourth day, prove troublesome, it will be proper to give the patient two table-spoonfuls of saline julep every hour. Tea made of mint and a little cinnamon will be very proper for his ordinary drink, especially if an equal quantity of red wine be mixed with it.

All preparations of antimony are improper in this fever, especially after the second or third day of it.

In case of a violent looseness, the following clyster may be injected:

Take of starch jelly, half a pint; tincture of opium, forty drops. Mix.

If a discharge of blood from the nose happens, the steam of warm vinegar may be received up the nostrils frequently, and the drink must be sharpened with spirits of vitriol, or tincture of roses.

After the violence of the disease is over, the body should still be kept open with mild purgatives, as manna, senna, rhubarb, or the like.

If great weakness and dejection of spirits, or night-sweats, with other symptoms of a consumption, should ensue, we would advise the patient to continue the use of the Peruvian bark, with sulphuric acid, sufficient to make the decoction of bark agreeably tart; and to take frequently a glass of generous wine.—These, together with a nourishing diet, and riding on horseback, are the most likely means for recovering his strength.

In order to save the readers of this work the trouble of turning to the Index, to find any subject contained in it, the future parts of it will be arranged alphabetically. It may be hoped this plan will save time, and render the publication more valuable to plain people.

Of Abortion.

Abortion is the birth of a child before its due time; or the destroying a child in the womb. The former may happen at any period of pregnancy, and from innumerable causes; but most frequently it occurs in the third or beginning of the fourth month: those which happen in the sixth, or later, are more difficult and dangerous.

The *Causes* are various:—Violent emotions; frights; poisons; strong purges; immoderate exercise; an obstinate diarrhœa; the small-pox, and other acute diseases; too much blood; great loss of blood; and, not unfrequently, an incautious use of the lancet. The lifting great weights; reaching too high; jumping, or stepping from an eminence; vomiting; coughing; blows; falls; excess of blood; indolence; high living, or the contrary; violent passions of the mind, fear, grief, &c.

The *Signs* of approaching abortion are—pain in the loins, or about the bottom of the belly; a dull heavy pain in the inside of the thighs; a slight degree of coldness, shivering; sickness; palpitation of the heart; the breasts become flat and soft; the belly falls; and there is a discharge of watery humours, or blood, from the womb. The utmost care should be taken, by women in a state of pregnancy, to avoid abortion; which is ever to be considered as more dangerous than natural labour. If of a weak relaxed habit, (known by lassitude, fatigue from a little exertion, and a great readiness to perspire,) they should take solid food chiefly; rise early, go soon to bed, take frequent exercise in the open air, but not to excess; avoid damp houses, and damp air. A decoction of bark, with sane julep, may be found beneficial. The bowels must, however, be kept free with castor-oil, or moderate doses of salts.

Women of a full habit ought to use a spare diet, to avoid strong liquors, and every thing that would heat the body, or increase the quantity of blood. Their diet should be of an opening nature, consisting prin-

cipally of vegetable substances. They should be kept cheerful and easy in their minds. If violent pains come on at the third month, a little blood may be taken from the arm.

When any signs of abortion appear, the woman ought to be laid in a bed on a mattress, with her head low. She should be kept quiet from noise and care, and her mind should be soothed and comforted. Too much heat from clothes should be avoided, and every thing heating in her food; which should consist of broths, rice, and milk, gruels made of oatmeal, and the like; all of which ought to be taken cold. Her drink ought to be barley-water, sharpened with juice of lemon: or, she may take eight grains of powdered nitre, in a cup of water-gruel, every five or six hours. If the woman be taken with a violent diarrhœa, accompanied with sickness, with or without vomiting, the following medicine may be of considerable service:

Take of sub-carbonate of potass (salt of tartar), one drachm; juice of lemons, one ounce and half; tincture of rhubarb, three drachms; tincture of colombo, five drachms; mint-water, six ounces; simple syrup, two drachms; mix together. Two table-spoonfuls to be taken every three or four hours.

In general, opiates are of service, especially in cases of nervous irritation; but they should be taken with caution.

Though we strongly recommend all due care to be taken, to prevent abortion, we would not be understood as restraining pregnant women from their usual exercises. This would operate the quit contrary way. Want of exercise not only relaxes the body, but induces too great fulness of the vessels; which are the two principal causes of abortion. There are, however, some women of so delicate a texture, that it is necessary for them to avoid almost every kind of exercise during the whole period of their pregnancy.

Of Abscess.

Abscess is a cavity containing puss, or a collection of matter in a part, in consequence of previous inflammation. It appears in different parts of the body, and may be divided into *three distinct kinds*, connected with the particular cause from which it arises. These are termed the *common abscess*, the *critical abscess*, and the *specific abscess*.

1. *Common Abscess.*—The symptoms of common abscess are a circumscribed tumor, attended with heat, redness, and pain. As it proceeds, a stiffness and fluctuation ensue; its size becomes more prominent; it acquires in the middle a shining colour; the teguments then give way in one part, and a thick viscid matter is discharged through the orifice. This is the manner in which an *abscess* is formed.

In the treatment of abscesses, it is a general rule not to discharge their contents till complete suppuration has taken place: for when laid open while any considerable hardness remains, they seldom heal kindly. In all cases, therefore, of common abscess, the rule of opening them should be, to allow a free suppuration to take place before giving vent to the matter.

Two methods of opening abscesses have been recommended by authors; namely, by caustic, and incision. To the former, however, there are many objections. It does not answer the purpose better than a simple incision; upon a tender inflamed part it gives much pain; it is more slow in its effects; and all the different kinds of caustic, notwithstanding the greatest attention, will sometimes spread farther, and penetrate deeper, than the operator intended. This method is now very generally laid aside, the preference being justly given to incision or puncture. When tumors are not large, they are commonly opened by a longitudinal incision with a lancet. This should be so directed as to terminate at the most depending part of the swelling, and be of such a size as may give a free discharge to the matter: about two-thirds of the length of the tumor is for this reason perfectly sufficient. When

abscesses are of great extent, they are commonly laid open through their whole length. As soon as an opening is made in a tumor, the matter is discharged at once: when the collection is large, faintings and other disagreeable symptoms are apt to ensue, and a free admission of air is given to a great extent of ulcerated surface. The bad effect of air, on all sores, is well known to every practitioner: but its pernicious influence on newly opened abscess is often really astonishing. It occasions a total change in the nature of the matter, and turns it from a very laudable puss to an ill-digested sanies; and afterwards brings on a quickness of pulse, debilitating sweats, and other such symptoms, which for the most part, when the collection has been considerable, either carries the patient off in a short time, or terminates in a confirmed consumption, which sooner or later proves fatal. In all large collections of matter, it seldom happens that the abscess is opened by a large incision without hectic symptoms taking place; commonly in less than forty-eight hours from the time of the operation. It is perhaps difficult to determine in what manner the admission of air to an abscess produces such powerful and sudden effects; though the irritation which it excites on a large extent of ulcerated surface, is probably the chief cause.

Hence, the greatest caution should be observed in preventing the admission of air to the internal surface of a large collection of matter; and this is most effectually done, by opening collections of this kind by means of a seton, and not with caustic or the lancet. This method of discharging the contents of tumors by the introduction of a cord, is attended with every advantage of that by incision: it moreover empties the swellings, of whatever size they may be, very *gradually;* it effectually prevents a free admission of air; it is not commonly attended with so much pain and inflammation; nor is the scar occasioned by it ever so inconvenient, or unseemly, as it often is after a large incision.

The largest tumors may be opened in this manner;

and when the patients are otherwise healthy, they very commonly do well; with this farther advantage, that a cure is frequently obtained in less than half the time that is necessary on their being opened with large incisions.

A regular and slow discharge of the matter is thus produced; the sides of the abscess are thereby allowed to contract gradually; and a slight inflammation being produced over the whole internal surface of the diseased parts, they are thus made to unite sooner than they otherwise would do. As the discharge becomes less, so the size of the cord should also be lessened; and it is easily done by withdrawing a thread of the cotton once in two or three days. At last, when there is little more matter afforded than might be looked for from the diameter of the cord, it may be withdrawn; and gentle pressure being continued upon the parts affected by a roller for a few days longer, a certain and lasting cure will very generally take place.

2. *Critical Abscess.*—This kind is always the attendant of a constitutional disease, and appears either in its progress or towards its termination. The seat of its appearance is therefore uncertain, and also the extent and even number of abscesses which may be formed. Such abscesses have also received different appellations, according to the particular disease with which they are connected. These abscesses may be considered as an effort of Nature to remove the cause of the malady, and to restore the constitution to a healthy state.

Abscesses situated upon any of the joints, or upon either of the large cavities of the breast and abdomen, more especially when they seem to run deep, should be opened as soon as matter is perceived in them; for when the resistance is on every side equal, they as readily point internally as outwardly; and the consequence of a large abscess bursting into either of these cavities is well known to prove most frequently fatal.

The quick progress usually made by carbuncle, renders it the worst, and perhaps the most dangerous species of inflammation. Patients, indeed, often re-

cover from external carbuncles, when not very extensive, and not seated on any of the large blood-vessels and nerves; but when they fix on any of the viscera, they mostly prove fatal; as no remedies with which we are acquainted can prevent their progress towards the last stage of mortification. Externally, indeed, when they are not very extensive, nor seated on any of the large blood-vessels, and nerves, they are frequently conquered; that is, by the destruction of the part affected.

When no blood-letting, or other evacuation, has been prescribed during the preceding state of inflammation; if the pulse continue quick, full, or hard; and especially if the patient be young, and plethoric; it then becomes necessary, even although mortification may have commenced, to empty the vessels by one general blood-letting; which, by moderating the fever, proves often the surest means of preventing the progress of the disease. In this view, blood-letting may be considered as an antiseptic; and it often, indeed, in this particular state of mortification, proves more useful than any other remedy we employ. In the same view, gentle laxatives, and a free use of acidulated cooling drink, become necessary. But as in the farther progress of mortification, the patient is apt to sink, and the pulse to turn languid, every evacuation, especially of blood-letting, should be directed with caution, and never carried farther than may seem to be necessary for rendering the symptoms moderate. Most commonly, when mortification has made some progress, the patient is much reduced; in such circumstances a very different treatment becomes necessary: the principal indication now being to prevent the system from sinking too much, by a proper use of cordials, and especially by those of the tonic kind.

Of all the medicines hitherto used in mortification, none has proved so efficacious as Peruvian bark, which can in no instance, with propriety, be omitted; excepting in the first stage of the disease, while symptoms of inflammation still continue. As soon as these abate, it may always, both with safety and advantage, be

employed. The best rule for the quantity of bark to be given in gangrene is, that the doses should be large, and as frequently repeated as the state of the stomach will permit. It often indeed happens that the stomach cannot contain a sufficient quantity of bark in substance, which, in this disease, is always the best mode of using it. Of all the forms employed for exhibiting bark, it sits easiest on the stomach when conjoined with an aromatic or spirituous water, and in the saline form; and to the use of which, in cases of gangrene that require bark, there can never be any objection. The following form is seldom disagreeable, and it answers with patients whose stomachs reject every other.

Take of simple alexiterial water, and cinnamon-water, of each two ounces; of aromatic tincture, one ounce; and of essential salt of bark, two drachms. Mix well together. Two table-spoonfuls are to be taken every two or three hours, the phial being previously shaken.

In this manner the virtue of a drachm of bark is taken every two hours; which, frequently in less than twenty-four hours, has some influence on the appearance of the disease. Much depends upon the medicine being well prepared, as patients often bear considerable quantities in this state when they reject very small doses of the powder.

Together with bark, the vitriolic acid is frequently employed in gangrene with advantage; and the best form of using it is by acidulating the patient's drink with elixir of vitriol. These are almost the only internal remedies to be depended on, in cases of gangrene. Many others, indeed, have been recommended; but all the advantages to be obtained from any of them, may be procured, with more certainty, from a proper application of the few which have been enumerated.

A variety of external applications are pointed out by authors, particularly those of the antiseptic kind; but all the advantages we derive from the great variety of applications usually pointed out for gangrene,

are obtained with more ease, and generally with more certainty, from the use of stimulating embrocations, A weak solution of sal-ammoniac in vinegar and water, has frequently been employed with advantage:— A drachm of the salt, to two ounces of vinegar, and six of water, form a solution of a proper strength for every thing of this kind; but the degree of stimulus can be easily either increased or diminished, by using a larger or smaller proportion of the salt. Although incisions may not in general be proper, yet, whenever the mortification runs deep, scarifications should be made in the diseased parts; but care should be taken that they are not made so deep as to injure the sound parts. When by the means of cure which have been proposed, or by the effects of a natural exertion of the system, a slight degree of inflammation begins to appear between the diseased and sound parts, we may expect that in due time an entire separation will take place; and when a full suppuration has fairly commenced, there is still less cause to doubt of a cure being obtained. On the mortified parts being removed, the remaining sore, being in a state of simple purulent ulcer, must be treated, as sores of this description ought always to be, with mild easy dressings: at the same time, the strength of the patient should be supported by the continuance of nourishing diet, Peruvian bark, and such quantities of wine as he can easily bear.

3. *Specific Abscess.*—This kind of abscess is the effect of poison, or contaminating matter, in a particular gland. It is known sometimes to follow small-pox and measles, and has lately been found a consequence also of cow-pox; but the most noted example of it is that arising from the introduction of the venereal poison, termed *bubo.* This subject it is intended to omit in the present work; and we therefore refer to a small popular treatise, lately published, on the venereal disease, by Mr. T. Mott Caton, an ingenious surgeon in London.

Such is the general conduct to be observed in this species of sore, divided into three kinds. In the first

kind, the simple means adapted to the cure of a common sore, with the precautions already enjoined, will succeed. In the critical kind, great care must be taken to prevent a mortification; and in the third, we are to be directed by applying the known remedy for extinguishing the particular poison from which the affection proceeds.

Of Apoplexy.

Apoplexy is a sudden loss of sense and voluntary motion. When produced by an effusion of blood, or distention of the internal vessels of the head, it is termed a *sanguineous* apoplexy; and when occasioned by an effusion of serum, which occurs chiefly in dropsical habits, a *serous* apoplexy.

Symptoms of Sanguineous Apoplexy.—With the loss of sense and voluntary motion, there is an appearance of sound sleep, with snorting; oppression of the breath; the pulse generally much slower; while the *arteries of the head*, particularly those of *the neck*, beat with increased force; the face is red and bloated; the neck swelled, with a distention of the vessels, and a dilation of the pupils of the eyes. Although the whole of the body is affected with the loss of sense and motion, one side, on a careful examination, will generally be found to be more so than the other.

These appearances, which constitute what is called the *apoplectic fit*, are often preceded by a sense of weight on the head, and giddiness; frequent headaches; bleeding at the nose; redness of the eyes; imperfect vision; a noise in the ears, (like the ringing of bells at a distance, or the boiling of a tea-kettle;) a transitory degree of numbness, or loss of motion in the extremities; faultering of the voice; impaired memory; drowsiness, particularly after dinner; the nightmare; and disturbed sleep.

By an early attention to these *premonitory* symptoms, an attack of this disorder may not only be foreseen, but may be effectually prevented.

Causes. — The immediate cause of apoplexy is a compression of the brain, and may be brought on by whatever increases the afflux of blood into the vessels of the head; such as violent exercise; passions of the mind; intoxication; violent vomiting, or straining. It may likewise be occasioned by whatever impedes the free return of blood from the head; as a tight ligature or handkerchief round the neck; stooping down, or lying with the head lower than the body; looking behind, or upwards, a considerable time.

Of the Treatment of Sanguineous Apoplexy.—The first and principal step towards the recovery of the patient, is evidently the unloading of the vessels of the head, by opening the temporal artery, by cupping, or scarifying the nape of the neck, which should be done as soon as possible after the attack. Bleeding from the jugular vein, is much recommended by some medical writers; but I conceive the unavoidable interruption to the return of blood from the head, by the ligature necessary to elevate the vessel, will certainly increase the effusion of blood in the head, in case of a rupture of a vessel; or if distention only exist, it may produce a rupture, particularly if the vein be not soon opened. Blisters should likewise be applied to the head, and between the shoulders. The next step is to lessen the determination of blood to the head, by increasing the circulation in the extremities, by stimulating the feet and hands with poultices, made with oatmeal, flower of mustard and vinegar, applied hot. The action of the bowels should be promoted by a brisk purgative medicine, such as the following:

Take of socotrine aloes, one drachm; dissolve in six ounces of peppermint-water; then add compound tincture of senna, one ounce. Three table-spoonfuls to be given every four hours till it operates.

If the two first doses should produce no effect, the following clyster should be administered in a warm state.

Take of socotrine aloes, one drachm; asafetida, one scruple; to be dissolved in a pint of gruel.

The body should be kept nearly in an erect posture,

and the head supported in that situation. The *sooner* these measures are taken, the greater will be the probability of success.

Persons of an apoplectic make, or those who have been attacked by it, ought to use a very spare and slender diet, avoiding all strong liquors, spiceries, and high-seasoned food. They ought likewise to guard against all violent passions, and to avoid the extremes of heat and cold. The head should be shaved, and daily washed with cold water. The feet ought to be kept warm, and never suffered to continue long wet. The body must be kept open either by food or medicine, and a little blood may be let every spring and fall. Exercise should by no means be neglected, but it ought to be taken in moderation. Nothing has a more happy effect in preventing an apoplexy, than perpetual issues, or setons; great care, however, must be taken not to suffer them to dry up, without opening others in their stead. Apoplectic persons ought never to go to rest with a full stomach, or to lie with their heads low, or wear any thing too tight about their necks.

The above observations claim particular attention. A full stomach impedes the circulation, which is naturally slower when asleep than when awake. The head lying low, seems to invite stagnation, and tight ligatures round the neck can hardly fail to produce apoplexy, by preventing the return of the blood from the vessels of the brain.

Of the Asthma.

The asthma is a disease of the lungs, which seldom admits of a perfect cure. Persons in the decline of life are most liable to it. It is distinguished into the moist and dry, or humoral and nervous. The former is attended with expectoration or spitting; but in the latter the patient seldom spits, unless sometimes a little tough phlegm, by the mere force of coughing.

Causes.—The asthma is sometimes hereditary. It may likewise proceed from a bad formation of the breast, the fumes of metals and minerals taken into the lungs, violent exercise, especially running: the obstruction of customary evacuations; as the menses, hæmorrhoids, &c. the sudden retrocession of the gout, or striking in of cutaneous eruptions; as the measles, &c. violent passions of the mind; as sudden fear or surprise. In a word, the disease may proceed from any cause that either impedes the circulation of the blood through the lungs, or prevents their being duly expanded by the air.

Symptoms.—An asthma is known by a quick laborious breathing, which is generally performed with a kind of wheezing noise. Sometimes the difficulty of breathing is so great, that the patient is obliged to keep in an erect posture, otherwise he is in danger of being suffocated. A fit of the asthma generally happens after a person has been exposed to cold easterly winds, or has been abroad in thick foggy weather, or has got wet, or continued long in a damp place under ground, or has taken some food which the stomach could not digest; as pastries, toasted cheese, or the like.

The paroxysm is commonly ushered in with listlessness, want of sleep, hoarseness, a cough, belching of wind, a sense of heaviness about the breast, and difficulty of breathing. To these succeed heat, fever, pain of the head, sickness and nausea, great oppression of the breast, palpitation of the heart, weak and sometimes intermitting pulse, and an involuntary flow of tears, bilious vomitings, &c. All the symptoms grow worse towards night; the patient is easier when up than a bed, and is very desirous of cool air.

Regimen.—The food ought to be light, and of easy digestion. Boiled meats are to be preferred to roasted, and the flesh of young animals to that of old. All windy food, and whatever is apt to swell in the stomach, is to be avoided. Light puddings, white broths, add ripe fruits, baked, boiled, or roasted, are proper. Strong liquors of all kinds, especially malt-liquor, are hurtful. The patient should eat a very light supper.

or rather none at all; and should never suffer himself to be long costive. His clothing should be warm, especially in the winter season. As all disorders of the breast are much relieved by keeping the feet warm, and promoting the perspiration, a flannel shirt or waistcoat, and thick shoes, will be of singular service.

But what is of peculiar importance in the asthma, is a pure and moderately warm air. Asthmatic people can seldom bear either the close heavy air of a large town, or the sharp keen atmosphere of a bleak hilly country: a medium, therefore, between these is to be chosen. The air near a large town is often better than at a distance, provided the patient be removed so far as not to be affected by the smoke. Some asthmatic patients indeed breathe easier in town than in the country; but this is seldom the case, especially in towns where much coal is burnt. Asthmatic persons who are obliged to be in town all day, ought at least to sleep out of it. Even this will often prove of great service. Those who can afford it ought to travel into a warmer climate. Many asthmatic persons who cannot live in Britain, enjoy very good health in the south of France, Portugal, Spain, or Italy.

Exercise is likewise of very great importance in the asthma, as it promotes the digestion, and is of service in the preparation of the blood. The blood of asthmatic persons is seldom duly prepared, owing to the proper action of the lungs being impeded. For this reason, such people ought daily to take as much exercise, either on foot, horseback, or in a carriage, as they can bear.

Medicine.—If the symptoms run high, with *pain* in the chest, and great difficulty of breathing; the loss of eight or ten ounces of blood, should always precede the use of medicine, in case the patient be plethoric, and not aged. Two or three table-spoonfuls of the following mixture may afterwards be taken three times a day:

Take of camphorated tincture of opium, three drachms; oxymel of garlic, one ounce; camphorated julep, seven ounces. If the expectoration continue

difficult, one or two drachms of tincture of squills may be added; and if the paroxysms be very violent, the following draught may be taken at bed-time.

Take of Dover's powder, twenty grains; vitriolic ether, half a drachm; camphorated julep, an ounce, Mix.

The inhaling of the vapours of ether, evaporated in a warm saucer, either before or during the fit, often affords considerable relief; and, if it does not prevent, it will very likely shorten the paroxysm. A plaister of burgundy pitch, camphor, and asafetida, may also be applied over the breast-bone. The squills, combined with ipecacuanha, in the form of a lozenge, is a composition well calculated to relieve asthmatic difficulty of breathing; and, on account of its gradual solution in the mouth, will often answer better than pills. This medicine was much recommended by Dr. Fordyce; and a very similar one, in the form of pills, by Dr. Morton.

Asthmatic people, of every description, should be very particular in attending to the state of their stomach and bowels, and guard against costiveness and flatulence; for the stomach being connected with the diaphragm, which is always more or less affected during the asthmatic paroxysm, a slight derangement of the digestive organs will never fail to increase the difficulty of breathing during the intervals of the paroxysms. When any symptom of indigestion is felt, the patient should clear the first passages by an active emetic; or a dose of Epsom salt, dissolved in water, to which, in case of much flatulence, a little ginger-powder, or compound tincture of ginger and camomile, may be added.

A very strong infusion of roasted coffee, is said to give ease in an asthmatic paroxysm.

In the moist asthma, such things as promote expectoration or spitting ought to be used; as the syrup of squills, gum-ammoniac, and such like. A common spoonful of the syrup or oxymel of squills, mixed with an equal quantity of cinnamon-water, may be taken three or four times through the day, and four or five

pills made of equal parts of asafetida and gum-ammoniac, at bed-time.

Vinegar alone, or combined with the oxymel of squills, or garlic, in the dose of a table-spoonful, often affords very considerable relief in asthma, by promoting expectoration.

The decoction of seneka-root has, in many instances, proved eminently useful: but to *young* people it has been found *too heating*. By promoting expectoration, perspiration, and secretion of urine, it may be considered an important remedy in the asthma of elderly people, particularly when attended with a dropsical disposition. It may be combined with squills, in the following proportion:

Take of decoction of seneka, eight ounces; oxymel of squills, one ounce; paregoric elixir, half an ounce. Mix. Two or three table-spoonfuls to be taken three times a day.

When the system is much debilitated, and particularly if the legs be affected with edematous swellings, the following pills will prove serviceable:

Take of asafetida, one drachm; carbonate of iron, two scruples; extract of cascarilla bark, one drachm; powdered squills, fifteen grains; simple syrup, sufficient to form a mass: to be divided into thirty pills; two or three of which are to be taken three times a day, with a tea-cup of infusion of juniper-berries.

Of Bleeding at the Nose.

In young people, it arises from a plethoric state of the arteries; and in the far advanced in life, of the veins.

Symptoms.—It is in general confined to one nostril, and for the most part occurs in warm weather, generally preceded by head-ache, redness of the face and eyes, noise in the ears, giddiness, frightful dreams, coldness of the extremities, &c.

Treatment.—In every young subject it is scarcely

worth notice, unless profuse, or the patient be of a full habit, when the loss of blood from the arm will be proper; and the occasional use of an aperient, such as Epsom salt, dissolved in water, or combined with senna, as in the following mixture:

Take of senna-leaves, two drachms; infused in half a pint of boiling water for twenty minutes; then strain, and add Epsom salt, six drachms; compound tincture of senna, one ounce. Three table-spoonfuls to be taken every three or four hours, till it has produced two or three evacuations; after which, one of the following powders should be taken every four or six hours, dissolved in a little cold water:

Take of purified nitre, in powder, one drachm; gum-arabic, ditto, three drachms. Mix, and divide into twelve equal parts.

About the period of life menstruation generally takes place, it should not be checked suddenly, but the remedies employed to produce a determination of blood to the extremities and womb.

Vinegar, diluted with water, should also be applied cold to the nostrils; and if these fail to stop the bleeding, dossils of lint, moistened with vinegar, should be introduced up the nostril; which, by coagulating the blood, and compressing the ruptured vessel, generally succeeds, if properly managed. The body should be kept in an erect posture, and the patient exposed to a cold air; and every thing avoided which might cause irritation, such as blowing the nose, speaking, &c. The diet should be low, and taken cold, and the extremities kept warm: and if it arise from suppression of the menstrual evacuation, or occur in young women, *aloetic* purges should be preferred. When attendant on putrid fever, it happens from the weak state of the vessels, and should be stopped by the application of vinegar, and dossils of lint, as suggested above. When it happens in old age, and is preceded by head-ache, drowsiness, and redness of the face, it should be considered as premonitory symptoms of apoplexy; and the preventive means as recommended for that disease, should be immediately employed.

In all cases of bleeding of the nose, the chief point to determine is, whether it be a disease, or whether it be an operation of nature to unload the system.

In fine, whenever bleeding at the nose relieves any bad symptom, and does not proceed so far as to endanger the patient's life, it ought not to be stopped. But when it returns frequently, or continues till the pulse becomes low, the extremities begin to grow cold, the lips pale, or the patient complains of being sick or faint, it must immediately be stopped.

For this purpose the patient should be set nearly upright, with his head reclining a little, and his legs immersed in water about the warmth of new milk. His hands ought likewise to be put in lukewarm water, and his garters may be tied a little tighter than usual. Ligatures may be applied to the arms, about the place where they are usually made for bleeding, and with nearly the same degree of tightness. These must be gradually slackened as the blood begins to stop, and removed entirely as soon as it gives over.

Whatever will produce rigours, or slight shivering of the body, as a cold key to the back, sprinkling the face with cold water, &c. will often succeed in checking the bleeding, not only from the nose, but other parts of the body.

PERIODICAL BLOOD-LETTING

is an error very common amongst the lower orders of people; and, I conceive, extremely inimical to the constitution. Bleeding is unquestionably a remedy of the greatest importance in a number of diseases; but, like all others, has been much abused, and perhaps in few instances more so than in that which relates to this absurd custom. A celebrated author observes, "That he who wantonly or capriciously squanders his vital fluid, obstructs, and, as it were, cuts off the sources of his support and regeneration. The most essential and constituent parts of the human frame are formed from the blood; and though it be true that the blood evacuated by periodical bleeding is soon reproduced by the activity of the vital powers, yet this

restoration is only brought about by considerable efforts, and at the expense of the whole machine." Those persons who, from a notion of preventing diseases, suffer themselves to be bled regularly once, twice, or oftener in a year, whether they be indisposed or not, ought to be informed that they are using means which are likely to bring upon them those very diseases which they appear to be solicitous to avert. If the habit has been already established, it may be safely and easily overcome, by substituting at those periods a gentle purgative or two, and adhering for some time to a more sparing diet.

Of the Bloody Flux, or Dysentery.

Dr. Cullen defines this disease, "A contagious fever, in which the patient has frequent mucus or bloody stools, accompanied with much griping, and followed by a tenesmus," (*i. e.* a frequent want to go to stool;) "the alvine feces" (the natural matter of stools) "being retained." The stools, though frequent, are generally small in quantity; the matter voided is chiefly mucus, sometimes blood. If the natural feces appear, they are small in quantity, compact, and hardened. A dysentery has been often confounded with a diarrhœa: each is attended with pain and tenesmus: but in the former the pain and straining are extremely violent. Again; a diarrhœa consists of the evacuation of feculent matter; for the stools, even when watery, contain dissolved feces:—in dysentery, the stools are retained, and the evacuation, discharged with much straining, is a small portion of mucus only or of mucus with blood. In dysentery, the discharge of blood is considerable; in diarrhœa, the discharges are seldom more than slightly stained with blood. In the latter, fever seldom attends, or is inflammatory only; whereas, in the former, the fever is of the nervous and putrid kind; and the prostration of strength considerable.

This disease generally occurs in summer and autumn. It is probably a kind of specific inflammation of the internal membrane investing the intestines, particularly the colon and rectum, occasioning a considerable morbid secretion of mucus.

It is most common in marshy countries, where after hot and dry summers it is apt to become epidemic. Persons are most liable to it who are much exposed to the night air, or who live in places where the air is confined and unwholesome. Hence it often proves fatal in camps, on ship-board, in jails, hospitals, and such like places.

Causes.—The dysentery may be occasioned by any thing that obstructs the perspiration, or renders the humours putrid; as damp beds, wet clothes, unwholesome diet, bad air, &c. but it is most frequently communicated by infection. This ought to make people extremely cautious in going near such persons as labour under the disease. Even the smell of the patient's excrements has been known to communicate the infection.

Symptoms.—It is known by a flux of the belly, attended with a violent pain in the bowels, a constant inclination to go to stool, and generally more or less blood in the stools. It begins, like other fevers, with chilliness, loss of strength, a quick pulse, great thirst, and an inclination to vomit. The stools are at first greasy and frothy, afterwards they are streaked with blood, and at last they have frequently the appearance of pure blood, mixed with small filaments resembling bits of skin. Worms are sometimes passed both upwards and downward, through the whole course of the disease. When the patient goes to stool, he feels a bearing down, as if all the bowels were falling out, and sometimes a part of the intestine is actually protruded, which proves exceedingly troublesome, especially in children.

When the dysentery attacks the old, the delicate, or such as have been wasted by the gout, the scurvy, or other lingering diseases, it generally proves fatal. Vomiting and hiccuping are bad signs, as they shew

an inflammation of the stomach. When the stools are green, black, or have an exceeding disagreeable cadaverous smell the danger is very great. It is an unfavourable symptom when clysters are immediately returned; but still more so when the passage is so obstinately shut, that they cannot be injected. A feeble pulse, coldness of the extremities, with difficulty of swallowing, and convulsions, are signs of approaching death.

Regimen.—Cleanliness is of peculiar importance in this disease; it contributes greatly to the recovery of the patient, and no less to the safety of such as attend him. In all contagious diseases the danger is increased, and the infection spread, by the neglect of cleanliness; but in no one more than this. Every thing about the patient should be frequently changed. The excrements should never be suffered to continue in his chamber, but removed immediately, and buried under ground. A constant stream of fresh air should be admitted into the patient's room; and it ought frequently to be sprinkled with vinegar, juice of lemon, or some other strong acid.

In this disease, the greatest attention must be paid to the patient's diet. Flesh, fish, and every thing that has a tendency to turn putrid or rancid on the stomach, must be abstained from. Apples boiled in milk, water-pap, and plain light pudding, with broth made of the gelatinous parts of animals, may constitute the principal part of the patient's food; which will not only answer the purpose of food, but likewise of medicine.

Another kind of food very proper in the dysentery, which may be used by such as cannot take broth, is made by boiling a few handfuls of fine flour, tied in a cloth, for six or seven hours, till it becomes as hard as starch. Two or three table-spoonfuls of this may be grated down, and boiled in such a quantity of new milk and water as to be of the thickness of pap. This may be sweetened to the patient's taste, and taken for his ordinary food.

In a *Putrid Dysentery*, the patient may be allowed

to eat freely of most kinds of good ripe fruit; as apples, grapes, gooseberries, currantberries, strawberries, &c. These may either be eaten raw or boiled, with or without milk, as the patient chooses. The prejudices against fruit in this disease is so great, that many believe it to be the common cause of dysenteries. This, however, is an egregious mistake. Both reason and experience shew, that good fruit is one of the best medicines, both for the prevention and cure of the dysentery. Good fruit is in every respect calculated to counteract that tendency to putrefaction, from whence the most dangerous kind of dysentery proceeds. The patient, in such a case, ought therefore to be allowed to eat as much fruit as he pleases, provided it be ripe.

The most proper drink in this disorder is whey. The dysentery has often been cured by the use of clear whey alone. It may be taken both for drink, and in form of a clyster. When whey cannot be had, barley-water sharpened with cream of tartar may be drank, or a decoction of barley and tamarinds; two ounces of the former and one of the latter may be boiled in two English quarts of water to one. Warm water, water-gruel, or water wherein hot iron has been frequently quenched, are all very proper, and may be drank in turns. Camomile-tea, if the stomach will bear it, is an exceeding proper drink. It both strengthens the stomach, and, by its antiseptic quality, tends to prevent a mortification of the bowels.

Medicine.—In the cure of dysentery, the first object is to cleanse the stomach by an emetic of twenty grains of ipecacuanha powder, and the intestines by an aperient, for which Epsom salt, in the dose of half an ounce, has answered best, occasionally repeated. As soon as the medicine has duly performed its office, in order to allay the increased irritability of the intestines, and to produce a determination of perspirable matter to the skin, two grains of ipecacuanha powder, with ten drops of laudanum, may be given every three hours. A clyster of starch administered twice or thrice a day, will also prove serviceable. When the pulse is full, hard, and strong, the loss of blood from

the arm may be necessary; but otherwise it may prove detrimental. At a certain period of this disease, which can only be determined by a skilful practitioner, blood-letting is often a very important remedy; but after the inflammatory symptoms have subsided, the loss of blood will not only retard the recovery, but endanger the life of the patient. If the pain in the bowels be violent, a warm bath, and a large blister to the abdomen, will be necessary. Vegetable jellies, such as arrow-root, sago, tapioca, &c. may be taken.

When the violent symptoms are abated, and the disease advanced to a *chronic* stage, the following powder, taken three times a day, in a tea-cupful of the decoction of the Iceland liverwort, will generally complete the cure.

Take of ipecacuanha powder, one grain; rhubarb ditto, four grains; cinnamon ditto, four grains. Mix. If, after one or two days' trial of this medicine, the symptoms should not considerably abate, eight grains of the compound cretaceous powder, and five drops of laudanum, may be added to each dose.

Several astringent and strengthening medicines are recommended at this period of the disease by medical authors, such as Simarouba bark, columbo root, cascarilla, and Peruvian bark; but I have found none of them to answer so well as the Iceland liverwort, which has never disappointed my expectations in one instance. Dr. Cheston, of Gloucester, has noticed a very obstinate case of dysentery, which resisted all other remedies, that was effectually cured by a decoction of this herb.

If the disease should continue obstinate, some obstruction, or ulceration, of the inner coat of the intestines may be suspected; in either case, five grains of the alkalized mercury, with five drops of laudanum, in a tea-cupful of the Iceland liverwort decoction, twice a day, will prove very beneficial. The patient should avoid the use of acids, and vinous or spirituous liquors.

Opium should never be employed in this disease, until a free discharge from the bowels has been pro-

cured by aperient medicines, and the excitement of the system diminished, as it generally aggravates the inflammatory symptoms.

After the complaint of the bowels has ceased, the rhatany-root will prove very beneficial in promoting digestion, and restoring the tone of the intestines. It may be given in the following manner:

Take of extract of rhatany-root, one drachm; aromatic tincture of ditto, six drachms; pure water, seven ounces. Two or three table-spoonfuls to be taken every four hours.

Of Bruises, or Contusions.

In slight bruises, it will be sufficient to bathe the part with warm vinegar, to which a little brandy or rum may occasionally be added; and to keep cloths wet with this mixture constantly applied to it. Or,

Take of camphor, one drachm; spirit of wine, two ounces; mix these; and, when the camphor is dissolved, add white wine vinegar, half a pint. Apply this to the part with linen cloths dipt in it, and keep the cloths wet with the lotion.

When a bruise is very violent, the patient ought immediately to be bled, and put upon a proper regimen. His food should be light and cool; his drink weak, and of an opening nature; as whey sweetened with honey, decoction of tamarinds, barley-water with cream of tartar, and such like. The bruised part must be bathed with vinegar, as directed above; and a poultice made by boiling crumbs of bread, elder-flowers, and camomile-flowers, in equal quantities of vinegar and water, applied to it. This poultice is peculiarly proper when a wound is joined to the bruise. It may be renewed two or three times a day.

As the structure of the vessels is destroyed by a violent bruise, there often ensues an ulcerous sore

very difficult to cure. If the bone be affected, the sore will not heal before an exfoliation takes place.

Patients in this situation are pestered with different advices. Every one who sees them proposes a new remedy, till the sore is so much irritated with various and opposite applications, that it is at length rendered absolutely incurable. The best method of managing such sores, is to take care that the patient's constitution does not suffer by confinement, or improper medicine, and to apply nothing to them besides simple ointment spread upon soft lint; over which a poultice of bread and milk, with boiled camomile-flowers. Nature, thus assisted, will generally in time operate a cure, by throwing off the diseased parts of the bone, after which the sore soon heals.

Of Burns and Scalds.

Slight burns or scalds may, in general, be cured by the following liniments:

Take of linseed-oil and lime-water, of each four ounces; laudanum, half an ounce. Mix. To be applied by means of lint, or soft old linen. Or,

Take of expressed juice of potatoes, half a pint; spirit of wine, three ounces; liquid laudanum, half an ounce. Mix. To be applied as above.

If the person burnt or scalded be of a plethoric habit of body, or he should become feverish, however trifling the accident, it will be prudent to open the bowels, by taking half an ounce, or six drachms, of Epsom salt, dissolved in whey, or water; the former is preferable. The saline julep is very proper; and after the operation of the salt, five or six drops of laudanum may be added to each dose of julep, especially if the patient be in much pain, or the injury be extensive. A low diet is necessary till the inflammatory symptoms have subsided, when the usual mode of living may be gradually resumed.

The immersion of the part in cold water, as soon as possible, affords instantaneous relief; and by keeping it a few hours in that situation, the mischief is certainly much diminished.

When the injury is extensive or deep, mortification may always be apprehended, whether the subject be old or young; the advice therefore of a skilful surgeon should be sought without delay.

Of Cancer.

A CANCER is a round unequal schirrhous tumor, of a livid colour, surrounded with varicose vessels, and seated in the glandular parts of the body, running on to a foul ulcer.

The eyes, the nose, the tongue, the palate, the cheeks, the lips, the groin, the armpits, the womb, and the breasts of women, are the parts most frequently affected, and those in which its ravages are most severe. In men, the lips, the tongue, the mouth, or penis, are most generally subject to this sore disease.

Celibacy, as well as the cessation of the menses, conduces to the production of cancers in women, and consequently antiquated maids are most subject to them; next are those mothers who have not suckled their children; then follow women who are past child-bearing.

Some of these tumors are fixed, others moveable; some pale, others again inflamed. They sometimes remain harmless and indolent for many years; at other times they increase hastily to a large size, ulcerate, and discharge a fetid sanious ichor, and soon prove mortal.

This disease was termed by the Romans *lupus*, because it eats away the flesh like a wolf. It is distinguished, according to its stages, into *occult*, and *open*: by the former is meant its schirrhous state, which is a hard tumor; it is attended with frequent shooting

pain, the skin becomes discoloured, and ulceration sooner or later takes place, when the disease is denominated *open*. It is characterized by callous, ragged, and unequal edges, and a kind of burning pain; a thin dark-coloured fetid ichorous discharge, often so acrimonious as to inflame, excoriate, and destroy the surrounding skin. From the corrosion of the vessels there is sometimes a considerable discharge of blood.

CAUSES.—Some contend that it arises from a general disorder of the system; others, that it is in its infancy entirely local, and that the constitution is only contaminated by an absorption of the virus from the open cancer. It is often excited by blows and accidents, and therefore more frequently occurs in the breast and lips.

TREATMENT.—Dr. Adams is of opinion that a cancerous tumor is a congeries of hydatids. The grounds on which he founds his arguments in favour of the *independent* life of cancer, led Mr. Carmichael to conclude, that if the vitality of those supposed animals was destroyed, they would be expelled from the body by suppuration; and as the saline preparations of iron have been known to be very effectual in destroying intestinal worms, he thought it might be equally destructive to other animals of the same parasitical nature: he, therefore, made a trial of the preparation of iron; the effects of which, he states, answered his expectation. This author first prescribed the rust of iron, to be taken in the dose of twelve grains every six hours, which was gradually increased to half a drachm and as a lotion for the part, a saturated solution of the acetate of iron. The author enumerates several cases of cancerous ulcerations (one of which was situated in the breast of a woman), in which this medicine proved successful; and to satisfy the minds of practitioners that they were real cancerous affections, he thought proper to request the attendance of Drs Toole and Gahagan, and the surgeons of St. George's Dispensary, in Dublin, who assert, that there was no doubt of the cancerous nature of the disease.

Mr. Carmichael was led, from the consideration

that iron in the blood is united with phosphoric acid, to try the effects of the phosphate and oxyphosphate of iron; and he alleges he has found those preparations infinitely more efficacious than the other salts of iron. He directs the surface of the ulcer to be sprinkled with the phosphate of iron, and afterwards covered with lint; and the oxyphosphate to be administered, from five to ten grains and upwards, made into pills with conserve of heps, two or three times a day. The phosphoric tincture of iron is the best preparation; it may be taken from twenty to forty drops, two or three times a day, in a glass of water. The dose should be gradually increased to sixty or eighty drops, if the stomach will bear it.

Dr. Barlow has published the particulars of an obstinate case of cancer of the breast, in which this treatment proved successful; and Mr. Allard, an eminent surgeon in Bristol, has found it answer in a very extensive cancerous ulceration on the arm. Mr. Carmichael has lately published several cases of cancer, in which the external and internal use of these remedies proved completely successful.

Dr. Lambe, in his late Inquiries into the Causes of Constitutional Diseases, attributing cancerous affections to the action of a salt, which he names septic poison, introduced into the system by the use of water, proposes to cure the disease by confining the patient to the use of water deprived of this deleterious combination by distillation, and to a regimen of vegetable productions; and it appears, in several instances, this plan has proved highly beneficial. The employment of water, thus purified, as a common beverage, and in every article of diet in which water is necessary; as broth, soups, tea, &c. with a strict adherence to a vegetable diet; has certainly a very powerful effect in improving the constitutions of cancerous patients; which is not only manifested by the countenance of the patient, but by the digestion being better performed, and the dark colour and offensive smell of the feces being gradually corrected. By means of this alterative regimen, and the medicinal treatment re-

commended by Mr. Carmichael, cancer may be cured, where the stamina of the patient has not been materially impaired.

It has been supposed that distilled water cannot be more pure, or possess any advantage over water that has been filtered. This idea, however, is very erroneous; for whatever water may contain in a perfect state of solution, it cannot be deprived of by filtration, but may be effectually so by distillation: hence we find the water that has been passed through a filtering stone, on being distilled, will leave a very considerable residuum, which in a day or two becomes extremely offensive, particularly that of the New River, or Thames water.

Prepared Natron, (*i. e.* soda,) has been also recommended as a remedy for cancer. I have given, says Dr. Reece, this article a trial in several cases of schirrhous tumor, and where the patient has persevered properly in its use, it has never disappointed my expectation; and its failure in the practice of others, I am inclined to believe, has been in consequence of its not having been given in sufficient quantity, or of its being discontinued before it could possibly have produced a favourable change in the system. Instead of prescribing it in the dose of a few grains two or three times a day, as is the usual practice, the patient should take a glass of a strong solution of it in water three or four times a day; so that in the course of twenty-four hours, two drachms of the salt be taken. The medicine is mild; and if the system be not well saturated with it, it cannot be expected that any real advantage can be derived from it in so obstinate a disease.

Hemlock, both externally and internally, has been much extolled by Dr. Stoerk, of Vienna, as an infallible remedy for cancer; and it appears by his reports that it has effected a cure in many obstinate cases, which, from the description given of them by the learned doctor, there can be no doubt were cancers. The experiments made with it in this country, by no means confirm this author's statement of its possessing a specific power, although it has been found to

palliate the symptoms, and in the form of a poultice to cure ill-conditioned ulcers.

Many have endeavoured to account for the failure of hemlock in the treatment of cancer, in this country. The plant, they say, chosen for preparing the extract or powder, might not have been the true *conium maculatum* (hemlock), which is distinguished by red spots on the stems. It may not have been gathered when in perfection, *viz.* when beginning to flower. The inspissation of the juice may not have been in a water-bath, but, for the sake of dispatch, over a common fire; or the leaves of the herb may not have been cautiously dried and preserved in a well-stopped bottle; or, if so, may still not have been guarded from the ill effects of exposure to light; or that the preparations might have suffered from the mere effects of long keeping. The experiments by several practitioners in this country, soon after Dr. Stoerk's publication, were made with an extract obtained directly from Dr. Stoerk, which was attended with no better effect. The best preparation of this herb is the powder; for making which, the leaves should be dried as soon as possible after they are gathered. The patient should commence its use in the small dose of two grains twice a day, and increase it half a grain every other day, till it nauseates the stomach, or affects the head with dizziness; at which dose it should be continued till the effects go off, provided it does not distress the patient, in which case it should be diminished. Before using medicines of this class, it will always be proper to improve the state of the digestive organs; for if acidity prevails in the stomach, and the food be not properly digested, the medicine, however well prepared, may undergo a decomposition in the stomach that may entirely destroy its medicinal quality. It is from this circumstance that medicines often fail in producing their desired effects on the constitution.

The topical application of hemlock, in the form of poultice or plaister, should accompany its internal use, especially in cases of open cancer.

The frequent extraction of blood from the surface

of a schirrhous tumor by leeches, when it is painful, is also necessary. If by these means the tumor be not dispersed, its progress to ulceration may be effectually checked.

Mr. Abernethy, in a late publication, under the extraordinary title of the "Diseases of *Health*," proposes to cure schirrhous tumors by the use of small doses of mercury, which he directs to be taken every other night, and a quarter of a pint of the decoction of sarsaparilla root three or four times a day. Mr. Abernethy has found this practice to succeed in several very obstinate cases. Although the intention for which these medicines are prescribed by this esteemed author are somewhat novel, the practice I conceive to be by no means so; for, in the Medical Observations and Inquiries, many cases of cancer, and particularly of the womb, have been stated to have been cured by the use of Plummer's pill, and decoction of sarsaparilla, the basis of the former of which is mercury: and Dr. Haighton, in his Lectures on the Diseases of Children, ten years ago, recommended a similar practice.

When we consider the mutation the body is constantly undergoing, we must allow its health must in a great measure depend on a proper digestion of our aliment, and the consequent formation of good chyle; for if the food be not properly digested, an unhealthy chyle will be formed; in which case we must expect morbid actions to take place in the system. By promoting digestion, we likewise produce an healthy action, in the system which will powerfully counteract any morbid disposition: the salutary effects of mercury and sarsaparilla, however, in such cases, few medical men will attribute solely to their operation on the digestive organs.

For the purpose of producing a separation of the disease in open cancer, a composition of arsenic has been very successfully used under the name of Plunket's remedy. M. Salmade has published a case of cancer, in the Medical Society at Paris, which resisted the ordinary modes of treatment, and was afterwards cured by repeated applications of the caustic powder

of Rousselot, made into a paste with water, and laid on the surface of the ulcer for twenty-four hours at a time; it was repeated after the interval of a few days, till the diseased part sloughed off, and the sore put on a healthy appearance.

The application of fixed air, and poultices made of oatmeal, charcoal-powder, and beer-grounds; and also turnip and carrot poultices; have been found to destroy the offensive effluvia of cancerous ulcers, and in some degree to assuage pain.

These directions equally apply to cancerous affections of any of the external parts of the body.

Of Canine Madness, or the Hydrophobia.

We may easily distinguish a dog to be mad, by his dull and heavy look, endeavouring to hide himself, and seldom or never barking; and yet he is angry, and snarls at strangers, and fawns and leaps on his owner; by refusing meat and drink; drooping, hanging down his ears and tail, and lying often down as if going to sleep. This is the first stage of madness; which is dangerous, though perhaps not so infectious.

Soon after this, he begins to breathe quick and heavy, shoots out his tongue, slavers a good deal, and froths at the mouth; looks half asleep, flies suddenly at the by-standers, and runs forward in a curve line. As these symptoms increase, he knows not his owner; his eyes are thick and dim, and water, like tears, runs from them; his tongue is of a lead-colour; he grows faint and weak, and often falls down; then rises, and attempts to fly at something; grows mad and furious. This is the last stage, in which he seldom lives above thirty hours. The nearer to this state, the more dangerous is the bite, and the more direful its effects.

The general symptoms, attending the bite of a mad dog, are,—

A little time before the distinguishing symptoms make their appearance, the patient is affected with

langnor, a general uneasiness and heaviness, disturbed sleep and frightful dreams, accompanied with tossings of the body, sudden startings and spasms, sighing, a love for solitude, and anxiety. These symptoms continue through the whole course of the distemper, increasing daily. Pains begin to shoot from the place where the skin was torn, all along up to the throat, with a straitness, and sensation of choaking, and a horror or dread at the sight of water or other liquids, (and some say on seeing a looking-glass,) great tremor, and loss of appetite. The persons affected can, in general, swallow any thing which is soft and solid; but when their lips come but in contact with a fluid, they start back in the greatest fury and agony: though this does not always attend the inability to swallow from the first, there have been instances where people have been very desirous to drink, and have made the attempt in various ways; they vomit a bilious matter; a fever, with great heat, comes on, attended with a continual watching, sometimes with a priapism; the tongue becomes dry and rough, and often lolls out of the mouth; the voice becomes hoarse; the thirst is very considerable, and yet they cannot drink; they endeavour to spit at the by-standers, even involuntarily, with an apparent desire of biting those they can come at; and yet have sense enough to beg they would keep from them, for fear of an accident of that kind; they rage, and foam at the mouth; they cannot bear to see a dog come into the room, and dislike a person in scarlet: their pulse sinks, and their breathing fails; cold clammy sweats come on, with convulsions, which finish the melancholy tragedy.

The following method of treatment is said to have succeeded in a case of hydrophobia: — 1. To the wounded extreme part, a caustic was applied, and kept open by blistering-plaister, and other stimulating ointments. 2. The part was frequently rubbed with warm oil. 3. A teaspoonful of the following electuary was administered three or four times a day:

Take powder of Peruvian bark, two ounces; powder of valerian, one ounce; cinnabar of antimony, half

n ounce; camphor, one drachm and half; conserve f wormwood, four ounces; syrup of saffron, sufficient o make an electuary.

4. To the throat was applied a plaister made of pium, camphor, asafetida, musk, and galbanum.

But our opinion is, that a *full, effectual*, and COMLETE EXCISION *of the wounded part, is the only certain eans of relief;* AND THIS IS CERTAIN.

Of Catarrh.

CATARRH is an increased secretion of mucus from he membrane lining the nostrils, fauces, and often the ungs, attended with slight fever, and cough. It geneally begins with a sense of stoppage in the nose, a lull pain, sense of weight in the forehead, and stiffess in the motion of the eyes, and soon after a disillation of a thin fluid from the nose, and often the yes, somewhat acrid, which constitute the complaint ermed *coryza;* and when the symptoms run high, and he disease very prevalent, *influenza.*

CAUSE.—This disease is evidently the effect of cold; which, by checking the natural perspiration of the kin, produces a flux of fluids to the membranes of he nose, fauces, and lungs.

TREATMENT.—When the febrile symptoms are moderate, it is only necessary to keep from cold, and bstain from animal food a few days; but when these ymptoms run high, it will be proper to keep in bed, nd to take frequently some warm diluting drink; as arley-water, gruel, or *weak* white wine whey, for the urpose of promoting perspiration. Two table-spoonuls of the following mixture may likewise be taken very three or four hours:

Take of almond emulsion, six ounces; gum-arabic owder, one drachm; ipecacuan powder, six grains; itre powder, half a drachm; syrup of poppies, six rachms. Mix.

If the patient be affected with *pains* in the chest,

and *great* difficulty of breathing, or is disposed to consumption, the application of a blister to the side most affected, or over the breast-bone, should not be delayed.

The diet should be low; and the beverage, the almond emulsion, compound barley-water, linseed or liquorice-root tea.

Of the Chicken-pox.

This eruption sometimes appears without any illness or previous sign, but most commonly it is preceded by slight fever. The vesicles are always distinct, and less in size than those of the small-pox: on the second day, there is on the top of most of them a very small bladder, about the size of a millet-seed, containing a thin colourless or yellowish fluid. This disease generally terminates in three or four days, from the first appearance of the eruption; and is attended with so little danger as to require no restraint of diet, or medical treatment, till after the crusts of the pustules begin to peel off; when it will be proper to give two or three doses of opening medicine, in the course of a week or ten days.

How to distinguish Chicken-pox.—This eruption may be distinguished from the small-pox, by not being preceded by illness, or only by a very trifling degree of fever; by the early appearance of the vesicles on the top of the eruptions; by the serum in them never acquiring the colour or consistency of pus; by the pustules being dry, and covered with crusts, on the *fifth* day; and by the eruption being generally first visible on the back.

Of Chilblains.

Chilblain is an inflammatory swelling, chiefly affecting the feet and hands, and is attended with pain and itching.

Causes. — Chilblains are occasioned by cold or damp; and occur most frequently in people of delicate constitutions.

When the hands or feet are benumbed by cold, if they be brought suddenly near the fire, chilblains will be produced; and this imprudent practice is the principal cause of chilblains in this country.

Treatment.—When the parts are frost-bitten by long exposure to the cold, they should be plunged into the coldest water, and afterwards rubbed with salt or flannel. When they are only benumbed, they may be rubbed with spirit of wine and camphor, or opodeldoc, to which a little laudanum may be added, if the pain or itching be very troublesome; but when they crack, and discharge an acrid matter, poultices should be applied; yet not for any length of time, as their continuance is apt to produce fungous excrescences. Diachylon-plaister, on leather, will afterwards effect a cure. An ointment, composed of equal parts of nitrated quicksilver-ointment and olive-oil, is a very excellent application for chilblains. It should be well rubbed into the parts with the warm hand; but if the skin be cracked, it may be applied spread on lint; and in case of much inflammation, a poultice may be applied over it.

Of Child-bed.

As the pains of labour, however regular in its progress, and happy in its issue, must produce some irritation of the system, and a tendency to fever, quietness and composure of mind are certainly the first objects. But our care should be extended to some other points also. Too much attention cannot be paid to cleanliness: all impurities are to be instantly removed. It is equally necessary to change the linen often, on account of its restraining the perspirable matter, which would soon be thrown back into the habit, and there produce the worst effects. Whenever the

weather permits, the upper sashes of the windows are to be let down a little, to admit fresh air; so as not to expose the patient to its direct current, for fear of checking the gentle and salutary perspiration, which naturally follows the fatigue of a labour, and is designed to abate any inflammatory and febrile symptoms. It would be no less dangerous to think of increasing or of forcing this natural discharge by large fires, a load of bed-clothes, closely-drawn curtains, or the still more pernicious heat of caudle, impregnated with spices, wine, or spirits. A fever is almost sure to be the consequence of such ill-judged expedients, in whatever way they may act. Sometimes they will put a total stop to perspiration, though they set the body on fire; and thus produce the very evil which they were foolishly employed to prevent. At other times, they cause so profuse and violent a sweat, as must not only exhaust the strength of the patient, and destroy the power of suckling her child; but prepare the way for the ready attacks of a fever, upon the least exposure to cold.

A temperate degree of warmth, therefore, will best promote that disposition both to sleep and to perspire which every woman feels after labour. The fires should be suited to the season, or rather to the state of the weather, and made barely sufficient to counteract the effects of cold and moisture. The drinks should be mild and diluting; and the bed-clothes should be light and porous, to favour the escape of the perspirable matter, while they afford a comfortable covering. A due regard to this regulation is the more necessary, as the patient must not be in a hurry to quit her bed, even when she may fancy her strength and spirits perfectly recovered. She should be informed, that the womb does not resume its natural state for two or three weeks; and that her lying in bed the chief part of that time, is most conducive to so desirable a purpose. A sofa is very convenient to recline upon, while her bed is at any time adjusting, or to afford relief from a long continuance in the same position. But I would by no means advise sitting up

in a chair, or removal into another room for the reception of company, till the end of the third week, and then only on the most perfect consciousness of health and vigour.

The mother after delivery should be indulged with a few hours sleep, to recover from the fatigue which she has lately undergone, and to allow due time for the secretion of the milk, before the infant is put to the breast: the child can suffer no inconvenience from this delay. Being replete with blood and juices, he has not the least occasion for any supply of nutriment, till the mother is prepared by necessary repose to give him the grateful and spontaneous beverage. Before this is done, the nipples should be washed in a little warm milk and water, in order to remove the bitter viscid substance which is furnished round them, to defend the tender parts from excoriation.

I would also advise the mother, during the whole time of her nursing, to wash the nipples, immediately after giving suck, in warm water, whenever this can be conveniently procured: and in case the supplies of the nutritive fluid are very copious, or seem to exceed the infant's wants, she may always press out a little of the milk before the child is put again to the breast, as the first drops issuing from the fountain at every heat are the most liable to sourness and putrescency.

Chin-Cough. See Hooping-Cough.

Of the Cholera Morbus.

The cholera morbus is a violent purging and vomiting, attended with gripes, sickness, and a constant desire to go to stool. It comes on suddenly, and is most common in autumn. There is hardly any disease that kills more quickly than this, when proper means are not early used for removing it.

Causes.—It is occasioned by a redundancy and putrid acrimony of the bile, cold, food that easily

turns rancid or sour on the stomach; as butter, bacon, sweetmeats, cucumbers, melons, cherries, and other cold fruits. It is sometimes the effect of strong acrid purges or vomits, or of poisonous substances taken into the stomach. It may likewise proceed from violent passions or affections of the mind; as fear, anger, &c.

Symptoms.—It is generally preceded by heart-burn, sour belchings, and flatulencies, with pain of the stomach and intestines. To these succeed excessive vomiting, and purging of green, yellow, or blackish-coloured bile, with a distention of the stomach, and violent griping pains. There is likewise a great thirst, with a very quick unequal pulse, and often a fixed acute pain about the region of the navel. As the disease advances, the pulse often sinks so low as to become quite imperceptible, the extremities grow cold, or cramped, and are often covered with a clammy sweat; the urine is obstructed, and there is a palpitation of the heart. Violent hiccuping, fainting, and convulsions, are the signs of approaching death.

Medicine.—At the beginning of this disease, the efforts of Nature to expel the offending cause should be assisted, by promoting the purging and vomiting. For this purpose the patient must drink freely of diluting liquors; as whey, barley-water, warm water, thin water-gruel, small posset, or, what is perhaps preferable to any of them, very weak chicken broth. This should not only be drank plentifully, to promote the vomiting, but a clyster of it given twice a day, in order to promote the purging. If the vomiting be not violent, from twenty to thirty grains of rhubarb in powder may be given in a little mint-tea, after which the patient should drink freely of chicken-broth, or barley-water. If the bowels swell, the belly should be fomented with a decoction of camomile-flowers, or the patient should be put into a warm bath for ten or fifteen minutes. A large blister should also, in this case, be applied over the region of the stomach and liver.

After these evacuations, a decoction of toasted oat-

bread may be drank, to stop the vomiting; the bread should be toasted till it is of a brown colour, and afterwards boiled in spring water. If oat-bread cannot be had, wheat-bread, or oatmeal, well toasted, may be used in its stead. If this does not put a stop to the vomiting, two table-spoonfuls of saline julep, with ten drops of laudanum, and a tea-spoonful of the tincture of colombo, may be taken every hour till it ceases.

The vomiting and purging, however, ought never to be stopped too soon; as long as these discharges do not weaken the patient, they are salutary, and may be allowed to go on, or rather ought to be promoted. But when the patient is weakened by the evacuations, which may be known from the sinking of his pulse, &c. recourse must immediately be had to opiates, as recommended above; to which may be added, good wines, with spirituous cinnamon-waters, and other generous cordials. Weak negus, or strong wine-whey, will likewise be necessary to support the patient's spirits, and promote the perspiration. His legs should be bathed in warm water, and afterwards rubbed with flannel cloths, or wrapped in warm blankets, and warm bricks applied to the soles of his feet. Flannels wrung out of warm spirituous fomentations should likewise be applied to the regions of the stomach.

When the violence of the disease is over, to prevent a relapse, the bowels should be kept gently open; and a decoction of Iceland moss, with six drops of diluted nitriolic acid in each dose, two or three times a day.

Of the Colic.

The colic is an acute pain, and obstruction in the intestines.—When the colic pain is attended with vomiting of bile, it is called a *bilious colic.* When the pain arises from wind, without any inflammatory or bilious symptoms, it is termed the *flatulent* or *windy colic.* If it takes its origin from hysteric complaints, it is named the *hysteric colic.* When it is accom-

panied with tension in the abdomen; soreness to the touch; febrile affections; as heat, thirst, quick pulse, and other inflammatory symptoms; it gets the name of *inflammatory colic.* When it is attended with an obstinate constipation of the bowels, and a vomiting of every thing that is taken, indicative, from the nature of what is discharged, that the passage through the intestines is entirely closed, the disease is termed the *iliac passion.* When the pain is violent, and seated in the umbilical region, striking through to the back, with obstinate costiveness, and a retraction of the navel, succeeded by spasmodic contraction, or palsy of the lower extremities, it is called the *nervous colic.*

BILIOUS COLIC.

The bilious colic generally seizes the patient about the beginning of summer, with a vomiting of a yellow greenish cast; a bitter taste in the mouth, with great heat; circumscribed pain about the region of the navel; sometimes with excruciating pain all over the abdomen; then shifting from place to place; little or no discharge of urine; a pulsation in the abdomen, with a sense of cold about it: frequently it is attended with a hoarseness, which continues during the whole stage of the distemper, with thirst, fever, and costiveness; and cometimes terminates in the *iliac passion.*

Bleed repeatedly, *if the pulse will admit of it,* and avoid every thing that will tend to increase the vomiting.

One of the following medicines should be given, as soon as the nature of the complaint can be ascertained.

Take pill colocynth with aloes, two scruples; purified opium, one grain; oil of cloves, two drops; made into eight pills, with mucilage of gum-arabic. Two pills to be taken immediately; and if they should not operate in four hours, two more may be taken. Or,

A table-spoonful of castor-oil, in mint-water; which may be repeated an hour after, if needful.

In the mean time, give small thin broths, gruel, whey, or warm water, to be drank very plentifully. Also

emollient and opening clysters should be frequently injected. If these do not give speedy relief, the patient must be put into a warm bath, and continued there as long as he can well bear it. The vomiting in this colic is often very distressing. Give a saline draught every hour, in the act of effervescence, till the complaint ceases; and add to each a few drops of tincture of opium, if occasion requires. — The saline draught may be made as follows:

Take of kali, one scruple; mint-water, one ounce; spirituous cinnamon-water, two drachms; syrup of white poppies, one drachm; stir these; and add half an ounce of juice of lemon; which should be taken immediately in a state of effervescence.

The leaves of common mint boiled in red wine, and applied to the hollow of the breast, are sometimes effectual in this case, when other things have failed, in stopping the vomiting. After stools have been obtained, the symptoms abate.

The above saline draught, with one scruple of aromatic confection added to it, may be given every six or eight hours. If the aromatic confection be not at hand, ten grains of Turkey rhubarb, in powder, may be used as a substitute.

The Bath waters, and riding, are proper to restore the patient, and prevent the return of the disease; or a course of Seltzer, or some sulphureous chalybeate water; with a course of aperient gums with soap; equal parts of tincture of colombo and rhubarb, a table-spoonful at bed-time twice a week.

The diet should be such as is light, and easy of digestion; not crude and flatulent. Malt-liquors should be avoided; and if feverishly disposed, Seltzer-water with hock; if not, with Madeira, Lisbon, or Sherry, particularly if the habit is rather cold and phlegmatic, form the best beverage for drink.

FLATULENT COLIC.

The flatulent colic is known by a wandering pain in the bowels, following the track of the colon, which

abates when the air is set free; the pain is not exasperated by pressure, but rather relieved; there is no extraordinary thirst, and the pulse but little disturbed. The habit is generally, nay, indeed, almost always costive; and sometimes so strong, that the peristaltic motion of the bowels is inverted, and the intestinal contents are pushed upwards, and ejected by the mouth. This, as well as some other species of colic, is sometimes attended with nephritic symptoms; hence the *nephritic* or *stone colic*. However, *they may easily be distinguished from the nephritis, by the pain not being fixed in the kidney, and propagated to the genitals; but being more extended towards the centre of the belly, and by the sudden relief after a discharge by stool. In the colic*, after eating, the pain increases; but *in the nephritis*, it is rather mitigated. In the nephritis, the urine is first clear and thin, and afterwards lets fall gravel or other sediment; in the colic, the urine is generally thicker in the beginning.

If the patient be plethoric, or of a strong habit of body bleeding is generally necessary; after which, he should drink plentifully of warm water, or camomile-tea, so as to promote vomiting; then procure stools by emollient clysters, which must be repeated, and made stronger, if necessary, till an evacuation is obtained; or, to a decoction of senna, or colocynth, add oil, honey, and common salt, or crude sal-ammoniac. One of the following medicines may be useful to the patient:

Take pimento-water, five ounces; spirituous cinnamon-water, one ounce; tincture of asafetida, two drachms; syrup of poppies, half an ounce. Mix. Two table-spoonfuls of this may be taken two or three times a day, or more, if necessary. Or,

Take water, six ounces; dissolve in it one ounce of manna; Rochelle salt, six drachms; tincture of senna, one ounce; oil of almonds, six drachms, mixed with yolk of an egg. Two or three spoonfuls of this may be taken every two hours, till a stool or two be procured.

Where liquids are rejected, pills or boluses should

be tried, made up of the brisker cathartics; as scammony, extract of colocynth, with aloes mixed with a grain or two of calomel, or pills of aloes with myrrh. And when the pain is very severe, opium should be joined with the cathartics; or, should there be any suspicion of an attendant inflammation, the patient should take freely of the following solution:

Dissolve two ounces of Epsom salt in a quart of water. A tea-cupful of it may be taken every two hours, till the inflammatory symptoms be removed.—After which the following bolus may be useful:

Take powder of myrrh, fifteen grains; purified opium, half a grain; syrup of orange-peel, sufficient to make a bolus. Or,

A table-spoonful of Daffy's elixir, will be very proper, and may be repeated daily till the patient be quite relieved.

Should the complaint be obstinate, fomentations, or bladders filled with warm water, common salt or oats heated, may be frequently applied to the parts affected; as also cupping-glasses.

The patient may reap much benefit from a warm bath; this should not be delayed. If he cannot plunge his whole body into it, he may sit in a tub of warm water, as high as his waist, so long as he can bear it without faintness. He should then be wiped thoroughly dry, and be kept from taking cold.

In all colics there is danger when the passage downward is much obstructed. If the pulse sinks, upon evacuations, it is bad. Strengthening bitters, with bark, exercise, and steel, are great preservatives against colic complaints.

HYSTERIC COLIC.

Women of a gross and lax habit of body, of an irritable disposition, and those who have just recovered from very difficult labours, are particularly subject to it. It attacks the region of the stomach, and sometimes the parts just below it, with violent pain, and is accompanied with exorbitant vomitings of green or

yellow matter, succeeded by great lowness of spirits. The pain goes off in a day or two, and frequently returns again in a few weeks, with as great a violence as ever. It is sometimes attended with a jaundice, which vanishes spontaneously in a few days.

When the symptoms are all gone off, and the patient is pretty well recovered, grief, anger, walking, or any other exercise used too soon, will occasion a relapse.

Bleeding and purging, in this species of colic, generally do harm; *unless the woman be of a sanguineous constitution, and robust make,* but then they are very proper.

The patient must drink a large quantity of warm posset-drink, whey, or carduus-tea, till there be a thorough evacuation of the contents of the stomach; after which, the following bolus may be given:

Take opiate confection one scruple; rhubarb, in powder, eight grains; aromatic powder, three grains; Peruvian balsam, sufficient to make a bolus.

If a draught be more agreeable to the patient than a bolus, he may take the following, and repeat it, if necessary:

Take compound spirit of juniper, one ounce; spring water, half an ounce; tincture of opium, twenty drops; simple syrup, two drachms. To be taken immediately.

The opiate must be repeated, till the symptoms go off entirely, allowing a proper interval between each dose, *for this is chiefly to be depended upon.* Aromatic bitters, with the bark, country air, and riding, will be the best means to recruit the strength, and prevent a relapse.

When a colic similar to this attacks hypochondriac subjects, it is termed the *hypochondriac colic.* The cure is the same as just now described.

INFLAMMATORY COLIC.

In the inflammatory colic, a vehement burning fixed pain is felt in those parts which are most affected, also

accompanied with a preternatural heat of the whole body; a quick pulse, loss of strength, anxiety, and inquietude.

When the inflammation is in the upper part of the intestines, the stomach will be distended with wind; and where it is very violent, convulsions will succeed on the diaphragm; attended with vomiting, painful inflation, rumblings, and sharp griping twitches, which may at last be productive of the *iliac passion*.

When the sharp pain, attended with fever and nausea, appears to be between the navel and the pit of the stomach, it may be suspected that *that* part of the colon is affected which lies under the stomach. If it be in the right hypochondrium, under the spurious ribs, then that part of the colon which joins the ilium may be inflamed: but when the pain is in the middle of the abdomen, about the navel, it indicates the small intestines to be affected.

In the inflammatory colic, bleeding repeatedly will in general be necessary; especially if the patient be plethoric, and the symptoms urgent: in this we must take care not to be deceived by the pulse; for, from the blood being solicited internally by the local irritation, a less quantity will circulate to the extremities; consequently the pulse will not give that indication of fulness sufficient, from this circumstance alone being considered, to induce the young practitioner to bleed; the want of which may be an irrecoverable error; he must therefore be directed by the urgency of the other symptoms; on bleeding, he will find the pulse increase, which will be a certain mark of the propriety of the operation: also warm, softening, emollient drinks, and clysters, should be administered. After these, if the vomiting be violent, an anodyne may be proper, given in the saline draught in the act of effervescence, and repeated occasionally. Warm fomentations are also useful; and the skins of newly-killed animals, applied warm to the abdomen; or bags filled with common salt, or oats, heated; and if these should fail, recourse should be had to the warm bath. Blisters ought to be applied to the part affected, immediately after

bleeding, be the cause either inflammation or flatulence.

Fresh weak broths are the best for drink, as well as for nourishment.

After bleeding, stools must be procured. One of the following medicines will be proper for the purpose:

Take of almond-milk, half a pint; manna, half an ounce; tartarised kali, six drachms. Mix; and take four table-spoonfuls every two hours, till a motion is procured. Or,

Take of castor oil, one ounce; peppermint water, six drachms. Mix; and take it immediately; and, if necessary, repeat it. Or,

Take powdered scammony, two scruples; opiate confection, sufficient to make eight pills: of which, one may be taken every hour, till the bowels are moved.

In the mean time clysters are to be thrown up; composed of fresh broth, olive-oil, and the bitter salt.

Quicksilver, where these fail, to the quantity of two or three ounces, given every second hour, has been recommended, with intent to force through the intestinal obstruction: also, *taking the patient out of bed, and dashing cold water on his extremities, whilst he stands bare-footed on a cold flag:* and in desperate cases, *tobacco clysters*, either by infusing a drachm or two in the decoction for clyster, or blowing the smoke into the rectum, by means of an instrument made for that purpose. Should any of these means succeed, the patient must continue for some time his course of cathartics and opiates occasionally, till all the symptoms perfectly vanish, and the freedom of the alvine evacuation evince that all the hardened feces are entirely removed.

To prevent a relapse, crude flatulent vegetables, and animal food of difficult digestion, should be avoided; costiveness always prevented; and riding persisted in, for in this case it is singularly serviceable.

But if, notwithstanding the helps above prescribed, the fever should continue, and clammy sweats come

on, with paleness, diarrhœa, fetid black stools, or like the washings of flesh, with a small intermitting pulse, and at last a total cessation of pain, you may prognosticate a mortification coming on, and that death is near at hand.

ILIAC PASSION.

The iliac passion is owing to an inflammation and obstruction in the intestinal canal, so as to allow no passage for either feces or flatulence. It may be occasioned by *hardened feces*, *violent vomitings*, *ruptures*, *earthy* or *stony concretions lodged in the intestines*, *tumors*, a thickening of the coats of the intestines, &c. and is attended with an acute pain of the bowels, an oppression at the stomach, tension of the belly, bilious or even stercoraceous vomiting, great thirst, heat, fever, and at last with singultus, cold sweats, delirium, convulsions, gangrene, and death.

The method of cure is nearly the same as prescribed in the inflammatory colic, the iliac passion being only the greatest degree of that disease.

The common drink should be weak chicken-broth, beef-tea, camomile-tea, or the compound decoction of barley; the almond-milk may likewise be drank freely, and a quantity of nitre may be added to it.

Bleed largely and *repeatedly*, more particularly if it arises from a strangulated rupture; next inject emollient, oily, and stimulating clysters; and give oily apelient remedies by the mouth; but the chief hope here is in bleeding, cathartics, and opiates.

Give half a scruple of extract of colocynth with aloes, and one grain of purified opium, and wait its effects. Or,

Take extract of colocynth with aloes, one drachm; almond-soap, and soap-pill, each one scruple; calined quicksilver, four grains. Mix, and make fifteen pills; of which take three every hour, till they operate by purging.

The warm bath, with the smoke of tobacco blown into the rectum by means of a proper instrument, are

often of the greatest service; and also the following tobacco-clyster, and pills:

Take leaves of Virginian tobacco, two drachms; spring-water, one pint; boil to twelve ounces, strain, and add bitter salt, one ounce; olive oil, three ounces. Mix, for a clyster.

Take extract of colocynth with aloes, one drachm; calomel, prepared, one scruple; oil of carraway, two drops; purified opium, three grains. Make into twelve pills. Take two or three of these at once; and if necessary, six hours after, repeat them, with one spoonful of saline julep.

If all these fail, we may have recourse to crude quicksilver; two or three ounces of which may be swallowed in a little broth every second hour, till it takes effect: the warm bath, tobacco-clysters, &c. being nevertheless continued.

Of Corns:

A HARD thickening of the skin, occasioned by the pressure of tight shoes, &c.

TREATMENT.—The callous inorganic substance, after having been immersed in warm water about half an hour, should be pared off with a sharp knife, and the part afterwards defended with diachylon plaister. The occasional cause should be avoided, by wearing loose shoes. When corns are situated at the bottom of the feet, their recurrence may be prevented, (after their removal as above directed), by the use of the horse-hair socks, the elasticity of which will obviate the effect of pressure and pain in walking.

Plaisters of verdigris and the red precipitate of mercury have been much recommended for the removal of corns, and alleviating their pain. From their caustic property, they may have a good effect; but from this circumstance they may also irritate and aggravate the pain. The benefit of plaisters is often more the effect of the soft leather on which they are spread

han any medicinal quality of the plaister itself; hence, putting on three plaisters, one above the other, the owermost having a hole in its centre, to let the top of he corn through, by taking off the pressure of the hoe, may be highly beneficial.

Costiveness

Is generally attended with the head-ache, giddiness, disagreeable taste of the mouth, a disrelish of food, and sometimes the piles.

Cause.—It is generally the effect of a sedentary ife; a deficient secretion, or inertness, of the bile; he use of port wine; a redundancy of slime; acidity n the stomach or bowels, or a spasmodic constriction of the intestines.

Treatment.—The alterative dose of the aperient alts, taken every morning in whey, will succeed in obviating costiveness much better than the rhubarb-oot; which, after its operation, is very apt to leave he bowels in a costive state. When an accumulation of slime is suspected in the intestines, which is frequently the case, two or three grains of calomel may e taken at bed-time, and repeated the third night, and n aperient salt the following morning; two doses will generally be quite sufficient for this purpose.

For costiveness attendant on a suppression of the enses, two or three of Rufus's pills, at bed-time, will rove a proper remedy.

When costiveness is attended with acidity in the tomach, three drachms of natron (*i. e.* soda) in a pint of water, and a tea-cupful of it taken thrice a day, will rove an effectual remedy; and the use of the tincture of camomile and ginger, a vegetable diet, and exercise, will prevent its recurrence. Costiveness, produced by the use of lead, to which painters are particularly subject, requires much more active medicines; such as the compound colocynth-pill, twelve grains, with one

grain of calomel. When costiveness is accompanied with piles, the electuary for piles will answer best.

Of Coughs.

When a cough occurs in a person of consumptive habit, or born of consumptive parents, or at the consumptive period of life, it requires more attention than the patient is generally willing to allow. A blister on the breast, the loss of blood from the arm, the occasional use of an aperient mixture, and the cough mixture, low diet, and the use of flannel next the skin, are all necessary to prevent a disease of the lungs, or inflammation of the membrane lining the wind-pipe, and the consequent morbid secretion of mucus, which tends to pulmonary consumption; a very common termination of neglected coughs.

For those chronic or habitual coughs to which many persons are more or less subject every winter, attended with shortness of breath, wheezing, and an expectoration of viscid phlegm, without pains in the chest, or fever, the following mixture will prove very beneficial, in the dose of two table-spoonfuls every four hours:

Take the emulsion of gum-ammoniac, six ounces; tincture of squills, three drachms; spirit of hartshorn, two drachms; paregoric elixir, three drachms; purified honey, half an ounce. Mix.

The squill-lozenge is also a very excellent medicine. When the cough is attended with swelling of the legs, little urine, and great difficulty of breathing on lying down, three or four grains of the oxyphosphate of steel, made into a pill with a little honey, should also be taken twice a day; but as these are unfavourable indications of a dropsy, the advice of an experienced practitioner should be sought.

For the cough of children, from two months or upwards, a gentle emetic dose of ipecacuan powder, repeated, if necessary, a few days after, generally affords very considerable relief. If attended with great

difficulty of breathing, or pain on coughing, a blister, or Burgundy pitch plaister, should also be applied between the shoulders, or over the breast, and a teaspoonful of a linctus of almond-oil and syrup of poppies, given three or four times a day. The almond-emulsion is a very pleasant and excellent medicinal drink for children affected with cough; it not only allays thirst, abates fever, and relieves the cough, but is so nutritious, that if a child takes more than half a pint in the course of a day, it will require very little else.

Cough is a symptom of pleurisy and inflammation of the lungs, when it is attended with rigours, fever, and acute pains in the chest.—*See Pleurisy, and Inflammation of the Lungs.*

Cough is also a symptom of dropsy of the chest, when it is attended with general debility of the system, swelling of the legs, great difficulty of breathing, and a sense of suffocation when in an horizontal position. *See Dropsy.*

Coughs are not only the effects of obstructed perspiration, but proceed from various other causes, particularly in children; such as teething, bowel complaints, foul stomach, fever, &c. and are recurring symptoms in delicate habits. However coughs are generally considered a very trifling affection, every person acquainted with the delicate structure of the lungs, must allow that they require the greatest attention and judgment in their treatment. More people die in this country of cough than any other disease, which in its commencement might have been readily cured by the most simple medicine. Hæmoptoe, and consumption of the lungs, are generally the consequences of neglected or ill-treated coughs. Scarcely any disorder alarms the mind of a medical man, when affected by it himself, more than cough; and hence, by attending to it on its *first attack*, medical men very rarely die of diseased lungs.

Of the Cow-pox.

Cow-pox, like all other discoveries in medicine, has met with opposition. The contest between its friends and its enemies has been carried on with undue warmth. However, the practice has now been sanctioned by the British parliament, and has been highly approved in many other nations.

The matter for inoculation should be taken in an early state of the pustule, generally about the fourth or fifth day after the inoculation, by penetrating the skin of the pustule with a lancet, and collecting on it the *clear limpid* matter that exudes; with which the arm of the person to be infected should be so slightly scratched as scarcely to draw blood. On the third or fourth day, the part will appear a little red and prominent, which will keep increasing till about the ninth or tenth day, when the constitution will be infected; the signs of which are, a slight fever, and a little enlargement of the glands in the pit of the inoculated arm. The part should be defended from the friction of the linen by applying a little gold-beater's skin; and if the surrounding inflammation should run high, white wine vinegar and water, equal parts, mixt, may be applied, and the linen cloths kept wet with the mixture, till the inflammation be removed.

Of the Cramp in the Stomach.

When cramp attacks the stomach, it is generally produced by flatulence, and often precedes or attends a fit of the gout. When it is the effect of indigestion, it may be relieved by a small tea-spoonful of the compound spirit of ammonia, in half a wine-glass of water, to which a tea-spoonful of ether may be added, if the patient be of a gouty habit, or the spasm be obstinate. The following mixture may *afterwards* be employed with great advantage, to prevent a recurrence

of spasm, and should be persisted in as long as the patient is troubled with any symptom of indigestion.

Take of essential salt of bark, one drachm; dissolve in half a pint of distilled or spring water; then add tincture of ginger, two drachms. Mix. Two or three table-spoonfuls of this mixture may be taken three times a day. If acidity be predominant in the stomach, a drachm of magnesia may be added.

The Jamaica ginger-powder has been found to succeed in gouty cases, by several eminent practitioners, better than any other stimulus.—*See Gout, and Indigestion.*

If the spasm be so violent as to resist the use of ether and compound spirit of ammonia, from twenty to thirty drops of liquid laudanum may be added.

Cramp in the lower extremities is a very common attendant on the latter stage of pregnancy, in consequence of the pressure of the womb on the nerves, and particularly during labour, from the pressure of the head of the child. In either of these cases, it may be relieved by grasping the part affected in the hand, by change of position, or by rubbing the part with dry flannel, or a flesh-brush. When it occurs during pregnancy, the internal use of laudanum and ether will also be proper. The patient should avoid costiveness, by taking occasionally a little lenitive electuary, and observe as much as possible an horizontal position. Cramp of the extremities may sometimes be speedily relieved by putting the *opposite* muscles into action; thus, when any of the muscles of the calf of the leg are affected, by putting those on the front into action, which is done by drawing up the foot, the cramp will instantaneously go off.

Of the Croup.

This disease, which is principally incident to children, rarely occurs till after weaning. It is most prevalent in low marshy countries, on the sea-coast, and

in wet and cold seasons. It seems to be peculiar to some families, and after one attack, the patient is very liable to a return on the slightest exposure to cold.

Symptoms.—It generally commences with an obtuse pain about the upper part of the wind-pipe, which is increased on being pressed. The respiration is difficult, attended with wheezing, and a *peculiar* ringing or stridulous cough, resembling the crowing of a *young* cock, and a trifling expectoration of mucous matter. The face is somewhat livid, and often much flushed, and the swallowing little affected: there is also some degree of frequency and hardness of the pulse, great thirst, restlessness, and feverish heat. The urine, on the first attack, is generally high-coloured, but sometimes limpid, and in the advanced stage, turbid. The wheezing and difficulty of breathing are increased by coagulated lymph, or sloughing of the membranous lining of the windpipe, which not unfrequently produces suffocation. The hands and feet are sometimes swollen.

Causes.—It is occasioned by the application of cold combined with a moist atmosphere, particularly in the spring and winter seasons. The immediate cause of the sufferings of the patient consists in an inflammation of the inner coat of the wind-pipe, which is covered with a layer of yellowish pulpy matter which Dr. Baillie in some instances found to extend from the upper part of the cavity of the larynx to the small branches of the wind-pipe, distributed through the substance of the lungs. There is likewise found on dissection, a collection of mucus in the wind-pipe and its branches, together with a mixture of matter.

Medicine.—From the situation and acute nature of this disease, *immediate* and *active* remedies are requisite to save the life of the patient; the chief of which are bleeding and blistering. On the first attack of the disease, six leeches should be applied over the wind-pipe, and a blister to the nape of the neck, and also *over the wind-pipe*, as soon as the bleeding from the orifices made by the leeches will admit of it. If the pulse be strong, or the feverish symptoms run

igh, the loss of blood from the arm may be necesary; a dose of emetic tartar, should also be exhibited ithout delay: and if it should not operate on the owels, a dose of jalap and calomel should be given a hour after the operation of the emetic. The child ay likewise be put often to breathe over the vapours f warm water and vinegar, provided it do not provoke oughing. If the skin should continue dry and hot, ve drops of the antimonial wine may be given every ree or four hours, with the saline mixture; and in ase these should fail of producing perspiration, the arm bath may be employed with advantage. The ncture of foxglove, in the dose of six or eight drops vice or thrice a day, has, in some instances, been ound very beneficial. The discharge of the blisters ould be kept up by dressing them with the weak ercurial ointment. This application, after the remoal of the dead skin of the blister, has in so many intances produced such immediate relief, that I have een disposed to attribute the recovery of the children rincipally to it.

The child may be supported with fresh milk, mixed ith almond-emulsion, or linseed-tea, of which from irst it will take such a quantity as to support it. fter the termination of the disease, the decoction of ark, with liquorice, will be necessary to prevent a elapse. Change of situation to a more light and dry r, will also be advisable.

This disease sometimes attacks adults, when the ame remedies to a greater extent are necessary.

Distinction.—Croup may be distinguished from flammation of the throat by the peculiar shrill ringg sound of the voice, and the breathing attended ith a wheezing noise; at the same time swallowing in general perfectly free; whereas, in inflammation f the throat it is difficult.

Two species of croup have been noticed by some uthors; the one depending on *inflammation* of the ner coat of the wind-pipe, termed *Inflammatory roup*, which is described above; the other from *pasms*, unattended with inflammation, termed *Spas-*

modic Croup; the latter species comes on in the night-time. It often intermits, and in the intervals both the respiration and cough, if any exist, are free from the *characteristic* sound of the inflammatory croup. If this disease be attended to early, medicines will have a very salutary effect; but if it be suffered to continue long, it will prove very obstinate of cure, or fatal. The best remedies in this species are emetics of ipecacuan powder, repeated every day, and the antispasmodic medicines recommended for asthma, which must be persevered in till the croaking noise has entirely left the patient.

Of Cuts.

The edges of an incised wound, termed a cut, if no foreign matter be left in it, should be brought into contact as soon as possible, and kept so by means of long strips of diachylon-plaister, spread on linen or leather, over which a dressing of brown cerate and a bandage should be applied, and not removed for at least three days, when a repetition of the applications and lint will in a few days more effect a cure. If inflammation should come on, the use of a lotion, and an aperient mixture, will be necessary. The traumatic balsam, commonly called Friar's balsam, is a very common, but improper application for fresh cuts, unless the lips of the wound be first closed; and then, if the wound be deep, it will not answer: the hot resinous gums of which it is composed, being separated on mixing with the blood, prevent the union of the sides of the wound, and thus occasion ulceration. Such stimulants should therefore never be incautiously employed, however trifling the accident, as their irritating quality may be productive of considerable mischief, particularly in an inflammatory or irritable habit.

In very superficial cuts, it is a common practice to apply the court-plaister, which, by keeping the

lges together, defends them from the air, and often icceeds; in all cases, however, the diachylon-plaisr, which may also be spread on black silk, or goldeater's skin, will answer best.

When the wound is deep, or the parts much bruised, attended with much loss of blood, it will be most rudent to apply to an experienced surgeon.—*See Wounds.*

Dance of St. Vitus.

This disease is a kind of convulsion, principally ttacking children from ten to fourteen years of age. first shews itself by a lameness, or rather unsteadiess of one of the legs, which the patient like an idiot raws after him; and afterwards so affects the hand, n the same side, that if a glass of liquor be put into to drink, before the patient can get it to his mouth, e uses a great many odd gestures; and as soon as it ath reached his lips, drinks it very hastily, as if he nly meant to divert the spectator. It is sometimes ccompanied with confusion of mind, and the patient ften labours under an impediment of speech.

Causes.—From its generally attacking weakly peole, it has been attributed to *debility* of the system. t arises from an increased excitement of the nervous ystem, which is often produced by irritation of the tomach and intestines, such as worms, and sometimes y violent passions and perturbation of mind. In feiales, at the period of puberty, it probably arises om the same causes as hysterics.

Treatment.—As the stomach and intestines are lways more or less disordered in this disease, the ure must be commenced by an emetic of ipecacuan owder, and the following day an opening medicine f rhubarb and calomel; after the due operation of hich, strengthening medicines, combined with those hat are known to allay the nervous irritability, should e persevered in; such as the following mixture:

Take of essential salt of bark, one drachm; dis-

solve in half a pint of water; tincture of Russian castor, three drachms; tincture of valerian, six drachms. Mix. Two table-spoonfuls to be taken three times a day.

If the complaint be attended with pain in the head, a blister should be applied to the nape of the neck, and the feet kept warm by the use of flannel socks.

When the symptoms are abated, cold bathing every morning will prove of great advantage; and with the use of the muriated tincture of steel, in the dose of ten or fifteen drops, in a glass of cold valerian and camomile-tea, will probably complete the cure. The opening medicine should be repeated two or three times a week, till nine or twelve doses have been taken; for if it arise from worms, it will effectually dislodge them; and if the stomach and intestines are in fault, which happens in ninety-nine cases in a hundred, the frequent exhibitions of such a purgative will probably remove it. Irregular action of the muscles is certainly connected with the state of the stomach and intestines, and Dr. Hamilton asserts, may be cured by frequent doses of cathartic medicines; many instances of which, that very able and experienced physician has lately published. If this treatment fail of affording relief, the cure should be attempted in the manner directed for epilepsy.

In many cases, electricity has proved of great advantage; but when attended with head-ache, or plethora, should never be employed.

The electuary of tin, recommended for the tape-worm, has been successfully prescribed by Dr. Blount, of Hereford; and it certainly has proved beneficial in improving the general health of the patient, and quieting the nervous system.

The diet should be regulated according to the strength of the patient: if plethoric, a low diet should be observed, and wine and stimulants avoided. On the contrary, if the body be much debilitated, a nutritious diet should be employed; but even in this case, wine and stimulants should be allowed with great caution. Cold bathing, if it do not alarm the mind, will

rove highly beneficial; it has been known to succeed ter all other means proved of no avail.

Of Deafness.

When deafness is occasioned by an accumulation hardness of the wax, the ears should be syringed very morning with warm soap and water till it be moved; and a little wool or cotton worn in them, oistened with two or three drops of camphorated oil f almonds. When it arises from decay of the nerve, ectric sparks, a blister behind the ear, and the use sneezing powder, are the most powerful remedies. When ulceration is the cause, which is known by a ischarge of matter, the ulcer should be healed as oon as possible, by syringing the ear every morning nd evening with the following lotion, made a little arm:

Take of tincture of myrrh, one drachm; Egyptian oney, two drachms; pure water, eight ounces.—Mix.

This diseased state of the ear, in which the tympanum is often more or less destroyed, frequently follows he scarlet fever, and is generally very difficult to cure; consequence of a portion of the tympanum being estroyed, or the surrounding bone of the skull being arious.

If it arise from obstructions in the *Eustachian tube*, reventing the passage of air into the internal ear, the ibe should be syringed with warm soap and water. When the cavity of this tube is obliterated by disease, which is not an unfrequent cause of deafness, it has been proposed to admit air into the internal cavity, by puncturing the *tympanum*, which has been practised successfully. This operation is very simple, and attended with no pain.

A temporary deafness is often produced by slight old, particularly in children, which frequently goes way in a day or two, after the use of a little aperient

and sudorific medicine, and avoiding the occasional cause.

Deafness is frequently the consequence of a deficiency of wax, when a liniment that will at the same time soften and gently stimulate the part, will afford considerable relief, if not entirely remove the cause, such as the following:

Take of oil of turpentine, two drachms; oil of almonds, six drachms. Mix. Two or three drops to be instilled into the ear, or applied by means of lamb's wool.

Of the Descent of the Fundament.

This is a protrusion of the rectum, and arises chiefly from a debility of the *sphincter ani*, and the adjacent parts, which serve to support that intestine in its situation. This disease may be occasioned also by violent straining on going to stool, and is frequently brought on by the indiscreet use of aloetic medicines; by the irritation of that species of worms called ascarides; by the natural efforts of such as are troubled with habitual costiveness; or by any other cause which in an extraordinary degree stimulates the rectum to evacuate its contents; and *in infants* by excessive crying. This complaint is not generally fatal, although extremely troublesome. Yet it never can be considered prudent to let the intestine remain for any great length of time unreduced, where its reduction can be effected.

Method of replacing the prolapsed Intestine.—The replacing the protruded intestine, when it forms a thick cushion around the anus, seldom is attended with much difficulty, either in children or those of adult years. The following rules are to be observed in returning it:

The patient ought to be placed on the edge of the bed, lying on his face, with his feet supported on the ground. The buttocks being elevated, they should

e pressed against each other, and making some gen-
le circular motions from right to left, and vice versa,
n the protruding part of the intestine; by these means
t generally re-enters very easily. In performing this
peration on children, they ought to be placed on some
erson's knee; their feet should be supported, and
he reduction attempted in the manner above described.
This mode of returning the *rectum* will, for the most
art, be found sufficient; but should it not, the higher
rt of the gut must be pressed upwards, by introducing
he fingers of the hand, previously oiled, while at the
ame time the palm of the other supports its lower ex-
remity. This will seldom fail, provided the intestine
s not in a state of inflammation, and swelled by long
xposure to the air. In this case, leeches should be
pplied to the inflamed part, and such applications as
re used in inflammations of other parts of the body.
After sitting over the steam of hot water, or, what is to
e preferred, decoctions of poppy-heads and camomile-
lowers, and also fomenting the parts with the same, a
olution of sugar of lead, in the following proportion,
will greatly assist in allaying the irritation that, more
r less, accompanies this state of the disease.

Take of sugar of lead, fifteen grains; water, one
quart. Mix them; and bathe the descended intes-
ine with this mixture made moderately warm. Com-
resses, wetted with it, (formed of linen of a sufficient
hickness to retain the mixture,) should be constantly
pplied to the part.

After the inflammation has subsided, the intestine
nay be returned with ease and safety; but it is often
lifficult to support it in its situation, when replaced.
n this case there is an absolute necessity for a suitable
andage, by which the parts may be preserved in their
natural situation; and if the intestine should happen
o fall down on going to stool, it may be immediately
eturned; which can be done by the afflicted person
imself, in the following manner, *viz.* by pressing the
wo fingers on each side of the anus, in order to push
he intestine upwards, in proportion as excrementitious
natter is discharged.

A clyster, composed of cow's milk, half a pint; brown sugar, and olive-oil, each one ounce; should be injected every morning, in order to facilitate the evacuation of the feces. In voiding them, an almost upright posture should be observed. If, notwithstanding all this care, the intestine descends, the same rules as pointed out for returning it in the adult, are for the observance and direction of those who are intrusted with the care and management of infants.

TREATMENT.—As debility is the prominent cause of this disease, so the treatment is promoted by the use of tonic and astringent medicines; such as Peruvian bark, steel, &c. The following combination of these two powerful remedies, has been administered with the best effects:

Take of Peruvian bark, in gross powder, one ounce; water, one pint four ounces; mix; boil this twenty minutes; strain it off, and add spirituous cinnamon-water, two ounces; syrup of roses, and chalybeate wine, of each an ounce: of which a small wine-glassful may be taken two or three times a day.

This is considered as a dose for an adult; for young people and children, a proportionate quantity must be given. In cases where the prolapsed intestine is attended with discharge, either of blood or matter, the following astringent powder, in doses from five to ten grains, may be taken three or four times a day.

Take of common alum, half an ounce; gum-kino, and aromatic spices, each one drachm. Make them into a fine powder.

It will likewise be found useful to have recourse to external applications, such as decoctions of Peruvian bark, galls, and other vegetable astringents; for as the malady owes its origin principally to a relaxation of the rectum, these will give an energy and tone to the weakened and relaxed parts. Forms which I have been accustomed to recommend, and have experienced the best consequences from, are prepared after the following manner:

Take of oak-bark, one ounce; water three pints

oil on a slow fire, until one-third is consumed; and
ıen add alum, in powder, half an ounce. Or,

Take of galls, in coarse powder, from three to four
rachms; water, three pints; boil until it is reduced
ne-half. Or,

Take three pints of smith's forge-water, and oak-
ark, one ounce: boil on a gentle fire, until reduced
ıe-third.

These decoctions are to be strained; and from two
) four ounces of either of them, when cold, may be
ırown up the intestine, once or twice a day; and if
rritation takes place, a little opium will make a very
seful ingredient in their composition. Linen com-
resses, wetted with any of these astringent liquids,
f a thickness proportioned to absorb the moisture,
ıould be constantly applied to the anus. The lees
f red wine have also been recommended with ad-
ıntage as an outward application; but in cases at-
ıded with irritation, this vinous application is inad-
ıissible. The diet should consist of roast and baked
ıeats, in preference to boiled. The patient may in-
ulge in a few glasses of red port, or old hock; and
is common beverage should be thin rice-gruel, with a
ixture of either of these wines. He must carefully
oid all fat, oily, and flatulent food.

Of Diabetes.

A DIABETES is a frequent and excessive discharge
f urine, exceeding the quantity of liquids and every
iment taken by the patient.

SYMPTOMS.—The first symptom of this disease is,
ıe increased discharge of urine, which soon acquires
sweetish taste, and, by chemical examination, a
uantity of sugary matter is detected, sometimes in
ıe proportion of one-eighth. This combination is
ınsidered its leading characteristic. It has an odour
esembling that of violets. The stomach becomes

affected; and a thirst, and voraciousness of appetite, succeeds, which will scarcely be satisfied. With these symptoms there is generally a slight degree of fever; and, as the disease advances, the emaciation and debility of the body naturally increase; and, sooner or later, a hectic fever comes on.

Causes.—This disease by some late writers is attributed to a morbid secretion of the gastric juice; direct effects of which they suppose to be the formation of saccharine matter, with a certain defect of assimilation, preventing the healthy combinations, and exciting the immediate separation of the imperfectly formed chyle by the kidneys. But as the stomach is seldom deranged till the diseased secretion of the urine has existed some time, it is more probable that the affection of the stomach is the *effect* and not the *cause* of the disorder; besides, if an increased action of the digestive organs were the cause, one would expect, as the system became debilitated, the disease of urine would be diminished; but so far from this being the case, the quantity of urine in general increases with the debility of the body. The immediate cause of the disease is a *deranged* action of the secreting vessels of the kidneys, by which the blood is disposed to new combinations; the effect of which is, the production of sugary matter. The kidneys, on dissection, are found preternaturally enlarged and flaccid.

Treatment.—In consequence of the urine being found to abound with *vegetable* matter, Dr. Rollo has proposed to cure this disease by confining the patient to a diet solely of animal food. This plan, it appears, has not succeeded in the practice of Dr. Lubbock, of Norwich, who found, notwithstanding a strict adherence to animal food, that no alteration was produced either in the quantity or quality of the urine.

Dr. Gilby, physician to the General Hospital, near Birmingham, has published several cases of diabetes which were cured by the nitric acid, in the following proportion:

Take of nitric acid, a drachm and half; barley water, half a pint; simple syrup, two ounces. Mix

four large table-spoonfuls to be taken, with the same quantity of water, three times a day.

Dr. Dobson, of Liverpool, who has paid particular attention to this complaint, recommends the use of strengthening medicines, as the Peruvian bark, &c. and Dr. Schutz much extols lime-water as an excellent remedy.

The hepatised ammonia, with an abstinence from vegetable food, has, it is said, succeeded in some instances in this disease. The small dose of five drops of this medicine should be begun with, and repeated three or four times a day in a little water, and increased two drops in each dose every day, till it produces some degree of nausea, or slight giddiness. This medicine should always be dropt at the time of taking, as by being mixed up in draughts, or any other form, its medicinal properties are destroyed by decomposition. A draught, composed of fifteen drops of laudanum, twenty-five drops of antimonial wine, and a little mint-water, is also recommended to be taken every night during its use. The bowels should be kept open, by the occasional use of flowers of sulphur, castor-oil, or the compound colocynth-pill. This mode of treatment, is directed to be pursued till the morbid condition of the stomach is removed; the marks of which are, a *diminished* secretion, and *high-coloured turbid* state of the urine, accompanied with a *loss* of appetite, and *loathing* of food. At this time the tongue and gums lose their florid red colour, and become pale: when these effects are produced, exercise is to be taken, and a *gradual* return of the use of bread, and vegetables, such as brocoli, spinage, peas, cauliflowers, cabbage, lettuce, and parsneps, in moderate quantities, is to be allowed. The drink should consist of such liquors as afford the least saccharine matter, as water with a very small portion of brandy.

Dr. Ferrear has succeeded in three cases, by giving the Peruvian bark, with the leaves of bear's wortleberry, and opium, in the following proportion:

Take of yellow bark, in powder, bear's wortleberry, in powder, of each one scruple; opium, dried and

powdered, half a grain. Mix. To be taken four times a day, in a glass of lime-water.

Lime-water is likewise recommended by this author, for the common beverage.

Dr. Reece says, I have found the rhatany-root to succeed, in this disease, much better than the Peruvian bark; and I believe it is the most powerful tonic medicine we are yet acquainted with.

During its use, the warm bath once or twice a week, and a flannel-waistcoat next the skin, will be proper. The diet should principally consist of animal food, and the common beverage, of three parts of distilled water, and one of alum-whey.*

An increased secretion of urine, is a frequent attendant on the hysteric affection and gout; in which cases it is free from saccharine matter, and being a symptomatic affection, will of course cease with the primary disease.

Of Dropsy.

This disease is a preternatural collection of water or serum, in some particular part of the body.

Causes.—A poor diet, loss of blood, or some mechanical cause. It may likewise be produced by whatever increases the effusion from the exhalent vessels, or diminishes the action of the absorbents.

Dropsy is distinguished according to its situation. When it occupies the cellular membrane, immediately under the skin, it is termed *anasarca;* when the cavity of the belly, *ascites;* and the chest *hydrothorax;* but all these fall under the general denomination of *dropsy;* and when produced by debility, require the same method of treatment.

The symptoms of anasarca are, a pale, and often shining distention of the skin, generally of the legs;

* This whey is made by boiling a drachm of alum in a pint of milk.

at first soft, and readily receiving the pressure of the finger. The swelling, by an horizontal position, is much diminished, and the face becomes puffed. It gradually extends itself upwards, till it occupies the thigh and trunk of the body, and sometimes even the head, attended with scarcity of urine, which is always high-coloured. When it occupies the belly, the enlargement begins at the bottom, and gradually increases upwards, attended with a sense of weight, and an evident sense of fluctuation on a sudden motion of the body. As the enlargement increases, the breathing becomes difficult, and the cellular substance of the legs distended. When the cavity of the chest is the seat of the disease, there is always, more or less, a sense of anxiety about the heart, or lower part of the breast-bone; a difficulty of breathing, which is increased by lying down, a dry cough, palpitation of the heart, paleness of the face, and when far advanced, the legs swell, and a fluctuation is perceived by the patient on any sudden shake of the body.

TREATMENT.—The removal of the collected water, and restoration of the tone of the system, are the only objects to accomplish in the cure of this disease, when the cause is merely weakness. The first should always be attempted by internal medicines, in preference to surgical operations or blisters. For this purpose the bowels should be emptied by the following bolus:

Take of powder of jalap, twenty grains; calomel, three grains; ginger, in powder, six grains; made into a bolus, with simple syrup. To be taken first in the morning; and should be repeated a few days, or a week after. Or,

Cream of tartar, two drachms; scammony, two grains; calomel, one grain. In a bolus, as above.

When the water is seated in the chest or belly, the following powder may be given:

Take of powder of foxglove, one or two grains; prepared calomel, two grains; aromatic spices, five grains. To be taken two or three times a week, in a little spirit of juniper. A table-spoonful of steel wine

will likewise prove a very useful addition to each dose of the mixture, in all cases of dropsy.

The repeated trials I have had an opportunity of giving the rhatany-root in cases of dropsy, have convinced me that it is the most powerful restorative we possess, having in no instance failed to effect a cure.

An emetic-powder may also be given two or three times a week, if the strength of the patient will admit of it. An emetic not only increases the action of the absorbent vessels, but is a powerful remedy in the removal of visceral obstructions. A speedy absorption of the water of dropsical swellings is often produced by spontaneous vomiting.

When the legs are affected, they should be well rubbed with a flesh-brush, or camphorated oil, and supported by a flannel roller; electric sparks, by stimulating the absorbent vessels, have also proved beneficial. The diet should be chiefly animal food, and the common drink the spirit of juniper, or brandy (diluted), and port wine.

If the collection of watery fluid be not evidently diminished after due perseverance in these means; if it be in the cavity of the belly, it should be drawn off by an expert surgeon; and if in the extremities, by blisters or scarifications, at the same time continuing the use of the tonic mixture.

From the supposition, that the condition of the skin of a dropsical patient is changed from a perspiring to an imbibing state, it has been proposed to besmear the surface of the body with oil. The quantity of water accumulated in the intervals of tapping, which has been found to exceed in weight the quantity both of food and liquids taken in the time, may, however, be formed in the system by the union of the inflammable and vital airs; the former of which dropsical patients are much troubled with, and which evidently enters the blood-vessels, by its passing off in considerable quantity from the lungs.

The diet should consist chiefly of animal food, either roasted, or stewed down into soup or rich broth; and the beverage, good Port wine, or the Holland spirit of

niper (commonly called gin), mixed with imperial ater, made as follows:

Take of cream of tartar, three drachms; the rind of ne lemon; boiling water, one quart; put these into n earthen vessel, and when cold, add a little sugar to ake it pleasant to the taste.

This will promote the operation of the medicines, y increasing the secretion of urine. The common ractice of confining dropsical patients to a limited use liquids, has never, I believe, been attended with ny advantage. Dr. Cullen observes, that he has een it carried to great length without any manifest enefit to the patient; while, on the contrary (observes is esteemed author), the practice of giving drink ery largely, has been found, not only safe, but very ften effectual in curing the disease. The ingenious nd learned Dr. Millman recommends large quantities watery liquids, for the cure of dropsy. Not only om the instances he mentions from his own practice, nd that of several eminent physicians in other parts Europe, but also in many instances in the re-ords of physic, of the good effects of drinking large uantities of mineral waters in the cure of dropsy, I an have no doubt of the practice being very often xtremely beneficial, by promoting the operation of iuretic medicines.

Exercise is often highly useful in dropsy; any mode ay be employed that the patient can most conveni-ntly take; such as walking, riding either on a horse in a carriage, or swinging. It should always be as uch as he can easily bear. By exercise alone, I am ersuaded, employed early in the disease, anasarca, dropsy of the lower extremities, may often be ured.

Dropsical swellings of the legs, attendant on preg-ancy, may be relieved by flannel rollers, friction, and eeping the legs supported on a sofa or stool, and y keeping the bowels regularly open by gentle doses f rhubarb, or electuary of senna.

Dropsy in the Brain. See Water in the Head.

Of the Dry Belly-ache.

This disease is not solely confined to the West Indies, though it appears there more frequently than elsewhere. In our own climate it arises frequently from a peculiar cause, namely, the poison of lead. This complaint is always attended with excruciating pain; and is seldom sudden in its attack. On the other hand, it steals on by degrees, beginning with a sense of weight and uneasiness in the belly, and particularly about the navel; which arises, in a short time, to a slight pain, not constant, but always increased after eating, until at length the most violent and constant uneasiness ensues, not only in the seat of the disease, but also in the arms and back.

The usual symptoms of the colic, which it resembles, are augmented in an extreme degree. The navel is drawn in towards the back; the lumpy feeling of the intestines acquires a stony tension and hardness; and their whole course, from the pylorus to the anus, exhibits symptoms of violent spasms, to such a degree that from a contraction of the sphincter, a clyster can hardly be admitted. The vomiting here is generally of a greenish or black matter, and the same discharge takes place by stool, possessing a highly acrimonious quality.

In the advanced stage of the disease, violent nervous symptoms come on; as blindness, loss of voice; and at times apoplexy and palsy.

The production of this disease has been referred to the poison of lead; but though this may at times be the case, it cannot on all occasions account for its occurrence. It has therefore been properly referred also to suppressed perspiration, after being in a heated or fatigued state, especially when there prevails a redundancy of bile, and when constipation appears in the first passages. This disease, if neglected at first, is often very obstinate, and attended with very serious consequences; insomuch that the patient, after suffering days and weeks of torment without relief, at length

ses all the power of his arms and hands, and some-
mes also of his legs.

In the cure of this malady, the first object is to re-
eve the pain of the bowels, and bring on a relaxation
f the spasm.

This is chiefly to be done by the use of opium, joined
ith carminatives, as the essence of mint and pepper-
int. Mild cathartics are then to be exhibited, as
astor-oil, or those of the saline kind, as bitter cathartic
lt, and cream of tartar.

Small doses of tartar-emetic may be afterwards ad-
inistered, interposing the use of opiates according to
ie state of pain, and applying to the abdomen the
arious external means for relaxing spasms; as warm
ataplasms, fomentations, blisters, &c. The slower
ie cure proceeds, the more successful is its issue.
When the patient is recovered, the greatest caution
ould be observed by him, to avoid whatever has a
ndency to renew the attack, especially acids, and
atulent flood.

He ought occasionally to employ mild laxatives,
d should guard against the effects of cold, since no
sease after a first attack is more apt to return. In
s advanced stages, vitriolic preparations, and alum,
ave been much recommended; but they are never
seful till after the bowels have been freely opened.

The remedies had recourse to are chiefly the warm
ath, and the use of tonics; friction and exercise are
so powerful assistants.

Of Epilepsy.

An epilepsy is a violent, involuntary, or convulsive
ntraction of the muscular parts of the whole body,
tended with a loss of sense. From the patient sud-
enly falling to the ground on an attack of this disease,
is also called *Falling Sickness;* and from its affect-
g the mind, it was termed by the ancients, *The Sa-
ed Disease.*

Symptoms.—A violent contraction of the greater part of the muscles, particularly of the extremities; the eyes, the tongue, the lower jaw, and the bladder; attended with foaming at the mouth, a total loss of sensation, and ending in a state of insensibility and apparent sleep. The patient, on becoming sensible, complains of torpor, heaviness of the head, and general lassitude. The fit often attacks suddenly, but for the most part is preceded by a pain in the head, lassitude, dimness of the eyes, and a kind of tremulous sensation, beginning in the lower extremities, often in the great toe, and ascending to the head. The fits frequently recur during sleep.

Causes.—The dissection of epileptic persons has shewn a variety of morbid appearances; as indurations in the brain or membranes; caries, or preternatural projections of the internal surface of the skull-bone; collections of serum, or purulent matter, and earthy concretions within the skull: while others who have died of epilepsy, have exhibited no such appearances. An aneurism in the head may be the cause of this disease. It is likewise produced by the irritation of worms in the stomach or intestines, particularly the tape-worm; by dentition, and violent passions of the mind, both of the exhilarating or depressing kind; as anger, joy, terror, and grief.

In children, epileptic fits often precede the eruption of measles, and other contagious diseases, and sometimes occur in females from a retention of the menstrual evacuation; but they more frequently proceed from an hereditary disposition.

Treatment.—Various remedies for this disease have been recommended, from the time of Galen to the present period, but none have fully borne the test of experience. When the disease arises from worms, powder proper for worms will be suitable; and, with the use of lime-water, and a tonic mixture, will prove sufficient for the removal of the cause.—*See Worms.*

When the source cannot be ascertained, if the patient be of an apoplectic make, and plethoric habit of body, bleeding will be proper, but not otherwise; a

he loss of blood, by inducing debility, will render the ecurrence of the fits more frequent. Valerian-tea, vith the tincture of the Russian castor, may be tried, vith the following pills:

Take of vitriolated zinc, half a drachm; essential alt of bark, one drachm. Mix; and divide into wenty pills; two to be taken twice a day, with a raught of valerian-tea.

The following bolus is much recommended by Dr. Hugh Smith:

Take of Russian castor, one scruple; oil of hart's-orn, six drops; the confection called Paulina, ten rains. Mix, for a bolus, to be taken every six hours.

The flowers of cardamine, or lady's-smock, have een prescribed with advantage by Sir George Baker; ne fresh powder may be taken to the extent of a rachm, three or four times a day.

Mr. Hodgson, of Bishopwearmouth, has published case of a young girl, about eight years of age, that as cured by electricity. A young lady was cured y citizen Portal, that was every day attacked by an pileptic fit. The attack beginning in one of her toes, ggested to that able anatomist the idea of dividing ne nerve, for the purpose of interrupting the commu-ication with the brain; but he began by the applica-on of opium to it, and that alone effectually prevented recurrence.

The good effects of calcined zinc have been attested y a number of respectable physicians and surgeons.

The following prescription for the exhibition of this edicine, is given by Dr. Saunders:

Take of calcined zinc, eight grains; conserve of ses, sufficient to form a bolus. To be taken twice day.*

A treatise on the efficacy of the misletoe of the oak the cure of epilepsy, has lately been published; by hich it appears, that it has been administered with mplete success in three different cases of epilepsy;

* Begin with three grains, and increase a grain every day, till the ove quantity be taken at a time.

all of which, it is stated, previously baffled the skill of several eminent practitioners; and the author asserts, that its exhibition has uniformly been attended with success, under his directions. A case of this disease in a lady of quality, in which it proved remarkably successful, is related by Boyle; and some years afterwards its use was strongly recommended by Sir John Colbach, who has published several instances of its good effects.

As there is incontrovertible evidence that these medicines have succeeded in certain cases, and as the disease arises from such a variety of causes, they are all deserving of trial: for, in the treatment of so distressing a complaint, no plausible remedy should be left untried.

If the patient be affected with pains in the head, a seton in the nape of the neck should not be neglected, and the feet kept warm by the use of flannel socks.

The seat of this disease is evidently the brain and nervous system, and therefore whatever tends to render the body irritable, will produce the fits. As there is a great sympathy between the brain and the stomach, epileptic patients are more affected with fits when the stomach is disordered; hence, in all cases of epilepsy, particular attention should be paid to the state of the digestive organs, and the patient should avoid every thing that has a tendency to disagree with his stomach. If his stomach be relaxed or weak, stimulants and astringents, such as flowers of zinc, &c. will often succeed in preventing a recurrence of the fits.

Distilled water affords the best beverage: this article, though simple in itself, may, by quieting the system and promoting digestion, prove of more real and permanent advantage than the most potent medicines. Hippocrates judiciously directs a total change in the manner of life, that former habits may lose their influence.

The power of the association of ideas, is in this disorder very remarkable: a gentleman, now resident in the city of London, is always seized with an epileptic

t on entering his carriage; and Van Swieten relates case of a child, who after being frightened into an pileptic fit by a great dog leaping on him, experienced return of it for some time on seeing a large dog, or ven by hearing his barking at a distance. It is a ell-known fact, that the mentioning any particular ircumstance that attended an epileptic fit, will often eproduce it. Hence, the learned Galen very judiiously advises all things to be avoided that lead to he recalling the disorder to the memory. Others of he ancient physicians, observing how much this comlaint is connected with mental affections, and how it ay be reproduced by reflecting upon it, have endeaoured to abstract the mind from such ideas, by excitng impressions still more powerful.

Distinction.—This disease may be distinguished rom apoplexy, by the *increased action* of the muscles, nd from hysteric fits, by *not* being attended with the pasmodic contraction of the muscles of the *gullet*, iving the patient a sensation of a ball rising in it, and y the patient having no dread of death.

Of the Eye.

The principal diseases that affect this organ—

Ophthalmic Inflammation.—Ophthalmia, or inlammation of the eyes, is known by heat, pain, and he common symptoms of inflammation; by a sense f some extraneous body irritating the part; by a lentiful effusion of tears, generally acrid, and excoriting the part they touch; and, in the progress of the lisease, by a viscid matter, which frequently glues the ids together.

The seat and extent of this inflammation may vary n different cases, and produce a greater or less vaiety in its symptoms. When confined solely to the ye-ball, the symptoms are generally local; but when he pain is deep, affects the head, and is muc' in-

creased by motion, or its exposure to light, general symptoms of fever then attend.

The causes of this disease are such as excite inflammation elsewhere: but of these causes, the peculiar office of the organ exposes it to be more immediately acted upon by acrid fumes, light, and colours, which under certain circumstances very frequently produce it.

The circumstances under which these causes are peculiarly active, are the existence of a scrophulous habit, or venereal taint, in the system; and it is in these constitutions that the local consequences of this affection are chiefly to be dreaded.

The disease generally terminates in one of three ways; either in resolution, suppuration, or opacity of the cornea.

The first is always to be aimed at; and where the inflammation is not far advanced, and no fault of constitution, it will commonly take place.

The second is to be dreaded; for, if it be general, in induces blindness.

The third is also attended with the same effect, though partial specks or films often wear off.

The treatment of ophthalmic inflammation, if from an external cause, or extraneous irritation, is to place the patient in a chair, in a proper light, then to open the under lid by pulling it out and downwards with the forfinger and thumb of the left-hand. By causing the patient then to move or roll the eye, it will be seen if any extraneous body is present in it, which may be removed by a blunt probe, with fine lint or rag wrapped round it. If not discovered by this inspection the same thing may be done with the upper lid, by pulling it upwards and outwards, and causing the eye to be moved downwards, when the irritation will be seen and removed. Should it prove of a sharp-pointed nature, instead of the probe, a small pair of forceps or a bit of quill, gently moved upon it till the body is loosened, will remove it.

But though this removal take place, the sense of irritation will still for some time continue; to subdue it farther, the eye may be bathed, by injecting mild

d water with a syringe or elastic bottle; first separating the lids, as in the examination, or holding the e immersed in the fluid by means of an eye-glass.

If the morbid effect should survive the cause, more owerful remedies must be employed. When the pain, erefore, is considerable, poultices, with extract of ad, may be applied over the eye. The general symptms of fever are to be abated by saline purgatives, peated every second or third day; while light and eat are to be carefully excluded from the apartment the patient. Should these applications prove ineffectual, blood must be taken either from the eye self, or from the adjacent parts, by opening the jugur vein, or temporal artery, or by the application of eches.

The external application of opiates has, in some ses, been found preferable, *viz.* a few drops of a soution of opium in wine, inserted between the lids. he several means of blistering, issues, and cold bathg of the head, have also succeeded under particular rcumstances of the disease; and for one symptom, ceration of the lids gluing them together, nothing is effectual as ointments with mercury. The patient ould be gradually exposed to light, as he can bear with safety.

After this view of ophthalmic inflammation, we next oceed to trace its various morbid consequences on the rt, where the above treatment has not succeeded.

The first of these is the formation of abscess; and here ophthalmic inflammation continues long without any remission, a deposition of matter, as its conquence, must naturally take place betwixt one or her of the coats of the eye, varying in its quantity d extent in different cases, and changing the natural mours, as well as the external appearance, of the gan, the ball of which becomes irregular, and full protuberances. This matter must be discharged, ther naturally or by the assistance of art.

The formation of this abscess is marked with the sual symptoms of fever; and, in its progress, is atnded with severe pain through the head, as well as

total blindness; the lids being also more or less impeded in their motion, and a sense of tightness prevailing over the globe of the eye.

The simplest of these ocular abscesses, is that which forms towards the internal angle, and is generally small. When discovered, its termination should be hastened by the application of poultices; and, on its discharge, the parts should be washed with a solution of extract of lead till their tone is recovered.

Another consequence of ophthalmic inflammation, is the formation of a fleshy excrescence, or membranous expansion over the surface of the eye. This seems to be an elongation of vessels during the inflammatory state; which, once begun, continues to proceed by the force of its own circulation, and may spread over a great part of the cornea.

During the state of inflammation, this expansion appears highly red or vascular; but as the inflammation decreases, it becomes pale, and often tends to a yellow colour.

Ulcers of the eye, are the effect either of previous inflammation, or of accidental injury; but most commonly the former. They are generally attended with much pain, and symptoms of fever.

In the treatment of such ulcers, two circumstances require attention.

The first is, to obviate the prevailing symptoms.

The second, to determine their local or constitutional nature.

The chief symptom requiring alleviation here is pain the consequence of inflammation; and this is most effectually done by scarification, and which will also promote the healing of the sore. When removed or abated, the healing of the sore becomes then the sole object; and if of a local nature, it will readily heal up by detergent stimulating applications, in the form of solution or ointment; as the verdigris, white vitriol, corrosive sublimate, &c. If excrescences arise in the progress of healing, they must be removed; and should the cicatrization appear slow after the sore is filled up, it may be hastened by astringent washes; as the solu-

on of alum, infusion of galls or oak bark, and the pplication of absorbent powders.

Another consequence of ophthalmic inflammation, the production of films or specks on the eye, without n erosion of substance attending them, as in the two receding affections.

These films are found in two situations, either the hite part of the eye, or the transparent cornea; and nus they vary both in their form and extent. It is nly, however, in their latter situation, that they require articular attention.

The treatment of such films depends on the appli-ations made to produce the separation of the thick-ned cuticle, and these applications consist either of scharotics or excision.

The escharotics here used are, verdigris, red preci-itate, alum, white vitriol, &c. they are either applied n the form of powder, ointment, or solution, being in-erted betwixt the eye-lids, and thus carried over the hole surface of the eye. Of these forms, the solu-on is preferable; and, to be successful, such reme-ies must be long continued and frequently repeated, nd perhaps in different forms.

OF CATARACT.

This is a species of blindness, occasioned by an opa-ity of the crystalline humour of the eye, preventing ne transmission of the rays of light to the optic nerve. f the retina (the expansion of the optic nerve in the nterior of the eye) be not diseased, vision may, in most ases, be restored, by either depressing the diseased ens, or extracting it entirely, which is technically ermed *couching*.

With respect to the advantages of depression over xtraction, there is great difference of opinion. Many ery respectable surgeons give the decided preference o the former. This operation is certainly less pain-ul and hazardous than extraction, and will ultimately nswer; for if the lens happen to be too soft to be holly depressed (which cannot always be prede-

ermined), it will probably be absorbed, after its cyst is ruptured, which may be promoted by the exhibition of a little mercury. The only objection to this operation is, that the lens will sometimes rise again into its former situation; but this is a very rare occurrence. Some of the first oculists recommend the extraction of the lens; but it must be allowed that the intention is too often frustrated by the inflammation and consequent thickening of the tunics of the eye; and it not unfrequently happens, that after the patient has gone through the pain of the incision, the lens is too soft to be removed entirely. The depression of the lens, on account of the operation being more simple, less painful, attended with little or no risk, and of succeeding as often as extraction, is entitled to the preference. Mr. William Hey, of Leeds, after thirty-three years' practice in diseases of the eye, states, that *experience* has led him to prefer the mode of *depression;* and very ably and satisfactorily confutes the arguments adduced by Baron V. and Mr. W. in favour of extraction.

So many well-authenticated instances of the absorption of opake lenses, by the *internal* use of mercury combined with hemlock, having been published by respectable practitioners, the operation should in no instance be recommended till these medicines have had a *fair* trial. The following is the usual form for their exhibition:

Take of extract of hemlock, two scruples; prepared calomel, fifteen grains. To be well mixed, and divided into twenty pills. One to be taken three times a day.

Of all the preparations of mercury, I have found the muriate to answer best in this disease. Eight grains of this preparation may be dissolved in an ounce of spirit of wine, of which ten drops may be taken in a wine-glassful of barley-water twice a day. After taking this solution a week, the dose may be increased to twenty or even thirty drops, if the stomach will bear it. In the course of three or four weeks, the patient will be enabled to determine whether it be likely to prove of any utility.

The state of the general health of the body should e attended to. If the digestive organs be disordered, ne treatment recommended for indigestion should be dopted. If the patient suffer from a determination f blood to the head, producing head-ache, redness f the eyes, or giddiness, the loss of blood, either by apping or bleeding, or a blister to the nape of the eck, will also be proper.

Electric sparks may likewise be applied to the ball f the eye once or twice a day.

The following remarkable case of the gradual disppearance of a cataract, is an evident proof that the bsorbent vessels of the part are equal to the removal f a diseased lens.

Admiral Henry being afflicted with a cataract in oth eyes, consulted Mr. W. who recommended their xtraction. The admiral agreed to the operation of ne eye, and, in case it answered, he promised to allow im to extract the other. Unfortunately, however, e was not in the least benefited by it; for so much nflammation and thickening of the cornea succeeded, s entirely to destroy vision. The admiral having ured himself of many obstinate attacks of rheumasm and gout by friction, and by rubbing the parts, ith a piece of wood, resolved to make the same exeriment on the eye affected with cataract. After ubbing the ball of the eye, and at times gently beating with a small wooden hammer (the eye-lids being losed), in a few weeks he found that he could discern luminous body, and by continuing the practice, the iseased lens was so totally absorbed, that the gallant dmiral was enabled to read small print.

OF GUTTA SERENA.

Gutta Serena is a species of blindness, without any pparent disease or fault in the eye, except a dilatation f the pupil. When there is a *total* loss of vision, the isease is said to be *perfect*, and imperfect when there s a power of distinguishing light from darkness.

Causes.—The disease is a paralytic affection of the

optic nerve, in consequence either of compression, debility, or poison.

Treatment.—Although three causes are enumerated as producing this disease, the mode of treatment to be pursued, for the recovery of the optic nerve, is the same. A seton, or a perpetual blister to the nape of the neck, should be employed, and the discharge kept up for at least two or three months, unless contra-indicated by *increasing* debility of the system. As an internal remedy, mercury, in alterative doses, is the most efficacious; and as its good effects depend more on its removing obstruction than on stimulating the nerve, its use should be persevered in till the constitution be sufficiently under its influence (known by a slight swelling of the gums, and an increased secretion of saliva), as there are many instances on record that have been cured by salivation, after other medicines had failed. The muriate of mercury is generally recommended; but calomel will certainly have as good an effect, and, on account of being much milder, is, in domestic practice, entitled to the preference. Calomel may be administered by making half a drachm into twenty pills with a little conserve of heps; one of which may be taken every forenoon, and at bedtime, till the gums become swelled and tender, when they should be discontinued for a week. It will likewise be proper to snuff up the nostrils a little of the compound asarabacca powder every night; or the following powder, which is much recommended by Mr. Ware:

Take of turbith mineral, one grain; liquorice powder, eight grains: of which that celebrated oculist advised one-fourth to be snuffed up the nostrils once or twice a day.

As a stimulating application to the balls of the eyes, an infusion of Cayenne pepper (made by steeping eight grains of the pepper-pods, bruised, in half a pint of cold distilled water, in a close vessel, for three hours, when it should be filtered through paper for use,) has been employed with success; two or three drops are to be conveyed between the eye-lids twice a day, and

o be persisted in for a considerable time. It appears his application has been used with success at the Liverpool Infirmary. The pain it excites is, however, often so acute, as to require great fortitude in the patient to bear it for a sufficient length of time. When he patient will not submit to it, the electric sparks pplied to the eyes twice a day, for six or eight minutes, will often answer as well, and perhaps in most nstances better. If an evident distention of the vessels of the head exist, the loss of blood from the temple, either by opening the temporal artery, or by eeches, or from the nape of the head by cupping, will e necessary. If accompanied with general plethora, welve ounces of blood should be taken from the arm; nd, in case of suppression or retention of the menstrual evacuation, the loss of blood will be proper; ither local or general, according to the state of the ystem. In this latter case, the remedies recommended for the retention of the menses should be employed.

OF THE APPENDAGES OF THE EYE.

We have hitherto considered the diseases of the ye itself: those which affect its appendages, are the arious swellings to which they are subject. Of ese the most common is the inflammatory tumor, or ye. Its situation is most frequently the under lid, roducing a sense of uneasy fulness over the internal nthus of the eye. The skin where it is seated assumes the various shades of inflammation till it bursts, hen a thick yellow matter is discharged, as in common abscess. But the inflammation here proceeds ore slowly than in other cases, from the more minute rculation of the part.

Besides this species of tumor, warts, and even cancerous excrescences, may form in this part.

Where the base of such tumors is small, a ligature ill remove them; but when the reverse is the case, xcision is here, in every respect, preferable to cauc. When removed, the sore is to be dressed with ermaceti ointment, and secured by adhesive plaister.

Connected with the diseases of the eyes, is the lachrymal sac, or, as it is termed *fistula lachrymalis.*

This is an obstruction of the passage of the tears into the nose, and this obstruction is considerably varied according to the special morbid circumstances that attend it.

The first and simplest species of the disease is the inflammation of the ducts from an external cause, which occasions a flow of tears on the cheek, without any other inconvenience, and is termed, the *outer catarrh.*

The second and more permanent species, is where obstruction exists in the under part of the sac or passage, distinguished by slight tumefaction of the angle of the eye, removed on pressure, by disappearance of its contents into the eye. This is termed *dropsy of the eye.*

The third species is formed by an increase of this obstruction, till it end in suppuration and rupture of the teguments; the successive repetition of which process unavoidably occasions a callous ulcer to be formed, which properly constitutes the *fistula lachrymalis.*

In this state of the disease, from the corrosion of the discharge, the bones are affected, and caries ensues. Frequently, however, it is connected with a constitutional taint, and the caries is dependent on that cause. Hence this affection is at times an attendant on lues and scrophula.

The opinion to be formed of this disease is, whether it be of an accidental or a constitutional nature, and the particular stage also to which, in either case, it has attained. In the first and second species, the cure is always in our power; but in the subsequent one it is more uncertain, and where from a constitutional cause it is seldom entirely complete.

In the first, or accidental species, the cure must proceed on the principles of obviating inflammation by bleeding with leeches, the use of saturnine applications, &c. and the inflammation being removed, should adhesion of the passage appear to have taken place, a small probe is to be inserted into each puncture, and passed along the course of the ducts into the sac. The

opening being made, is to be preserved by weak astringent injections occasionally thrown in by means of a syringe, or by leaden probes constantly worn till the sides of the passage become callous.

In the second species, as the obstruction is generally removed by pressure, its constant application so as to palliate the inconveniences of the disease, may be attempted by an instrument, as more permanent than the occasional use of the finger.

But in the third species, medical aid should by all means be sought.

Of Flatulence.

So prevalent are flatulent affections of the stomach and intestines in this country, that very few persons are entirely exempt from them. They have, however, by no means met with that attention from the medical profession which their frequency, and effects on the constitution, demand. Indeed, so little have their causes and nature been investigated, that they have been merely noticed as *symptoms* of indigestion. The gas (vulgarly termed wind) generated in the stomach, is fixed air (technically termed carbonic acid gas,) which is disengaged from badly-fermented liquors, and probably is sometimes the effect of a decomposition of vegetable aliment, in consequence of weakness of the digestive organs. A collection of air in the stomach may therefore, in some degree, be considered the effect of indigestion. But the gas generated in the *intestines* is of a very different kind, being *inflammable air*, and evidently not altogether the effect of indigestion. This gas is, I believe, always discharged downwards: it is more or less offensive to the smell, being similar to the inflammable gas arising from gutters or stagnant water.

The air evolved in the stomach is noticed under the head of Indigestion; but as the generation of inflammable gas in the intestines is difficult to account for,

I shall notice it here as a *primary* complaint; and, for the sake of distinction, term it *Intestinal Flatulence.*

Such as indulge in the free use of spirituous and vinous liquors are most subject to this gas; and it is remarkable, that even the breath of those who are in the habit of frequent intoxication is strongly impregnated with it. Whether this gas be disengaged from the wine or spirit, or whether those liquors, by their chemical action on the inner coat of the intestines, produce a morbid secretion of mucus, and inflammable gas is in consequence generated, I cannot take upon me to say.

Nervous and hypochondriacal patients appear to suffer so considerably from this gas, that I never knew a nervous patient who did not always find himself much benefited by a free expulsion of it. Even violent head-aches, stupor, palpitations of the heart, horror of mind, dimness of sight, noises in the ears, nervous twitchings, dryness and heat of skin, and a variety of other symptoms, have been speedily relieved by its evacuation. That this inflammable gas enters the blood-vessels is obvious, from its passing off by the breath; but whether these nervous affections be thus excited, or whether it be sympathetic of the irritation produced by it on the inner coat of the intestines, cannot be easily determined. That it is the cause of many nervous complaints, there can be no doubt. Water being a composition of the inflammable and vital airs, it seems possible that water may be formed in the system by the union of inflammable gas with the oxygen of the blood, and thus produce dropsical swelling; and at the same time, by depriving the blood of this vital principle, induce a dangerous degree of weakness in the system. Such an occurrence is more probable, than that the condition of the skin should be changed from a perspiring to an imbibing state, which, from the accumulation of water, has been supposed to be the case in some diseases of emaciation.

I have also observed that those people who are most troubled with inflammable gas, are most liable to

ead-ache and rheumatic affections on change of wea-
ıer, and particularly on the approach of rain.

TREATMENT.—The first object in the treatment of
ıis complaint is, to empty the intestines by an active
perient medicine, that will also carry off the vitiated
ime adhering to the coats, and at the same time ex-
te an healthy action in the mucous glands. For
ıis purpose, calomel will answer best; three grains
which may be taken at bed-time (made into a pill
ith a little conserve of heps), and purged off the next
ay with a solution of Epsom salts. These medicines
ıould be repeated at least twice a week for a fort-
ght. In the intermediate time, three table-spoon-
ls of the following mixture may be taken three times
day:

Take of rhatany-root, bruised, one ounce; infuse in
velve ounces of boiling water till cold, then strain,
ıd add diluted vitriolic acid, three drachms; vitrio-
ted magnesia, two drachms; compound tincture of
ırdamom-seeds, six drachms.

If the constitution have suffered from the free and
ntinued use of spirituous liquors, the patient should
ntinue to take this mixture for at least three or four
eeks.

The Jamaica ginger-powder is the best carminative
at can be used in this case, as it not only effectually
pels the gas, but, I believe, also corrects the secre-
ın of the intestines, and, by stimulating their inner
at, occasions them to throw off any accumulation of
ucus; thus, the feces of people in the habit of using
are generally covered with slime.

The application of cold water to the head every
orning by pumping on it, or applying to the crown
wet napkin for two minutes, has, in several in-
ances, proved highly beneficial, probably by allay-
g morbid irritation of the brain, and, of course, of
ıe whole nervous system.

It is scarcely necessary to observe, that the patient
ıould abandon the use of spirituous or vinous liquors;
not immediately, at least by degrees, if he be desir-
ıs to obtain permanent relief.

It is a very common practice with physicians to desire their patients troubled with this complaint, to abstain, as much as possible, from a vegetable diet. I have known this advice very strictly followed, but I have not found that the patients have been the least benefited by it; nor is it to be expected from the nature of the gas, that they would; for the fixed air, disengaged from vegetables, rather corrects it than otherwise. Indeed, water saturated with fixed air, as the soda-water, I have found an excellent palliative, and evidently to correct its fetor. People that overload their stomachs with animal food are certainly more troubled with this species of flatulency than those who chiefly live on vegetables. A proper admixture of vegetable and animal food I have found best to agree with such patients, and pure water as a beverage.

The cordial medicines of quacks, or, what is the same thing, ardent spirits and wine, often afford flatulent patients some relief, by expelling the air contained in the intestines; they, however, afterwards supply it in greater quantity to the blood; and a patient, encouraged to persevere in the remedy from the transitory relief it affords, does not discover his error till his constitution has so far suffered, that an increased dose of the cordial becomes absolutely necessary to keep up the vital functions. The mischief that flows from this polluted source of dram-drinking is incalculable. The most robust constitution is often ruined by it; and where it does not rapidly undermine the system, it leads to other excesses, which in process of time will infallibly terminate the life of these deluded votaries of pleasure.

Of Gout.

The animal body is composed of different systems, *viz.* the nervous, the lymphatic, sanguiferous, &c. In these systems, the same disease exhibits differe

henomena. When the lymphatic system is tender, nd easily disturbed, the habit is said to be srophu- ous. The disease termed *Gout* is an inflammation, r super-ignition, of nerves; and, of course, the most ainful inflammation to which the human body is sub- ect. It is probably, as Dr. Cullen observes, an effort f Nature to restore vigour to a nervous system which as been debilitated or injured by over-stimulation, which she accomplishes by exciting inflammation in heir extremities. Like scrophula, this state of the ervous system is often transmitted by parents to their ffspring.

This disease is divided into Regular and Irregular. When the inflammation appears in the nerves of the oints to a *due degree*, and *gradually* disappears, after certain duration, leaving the patient rather in an mproved state of health than otherwise, it is termed *Regular*.

Of the *Irregular*, there are three species, *viz.*

Atonic, When there is not power in the nervous sys- em to produce a sufficient degree of inflammation in he extremities; in this case the organs of digestion re impaired, and the general health variously affected. —*Retrocedent*, When the inflammation in the joints s slight, and suddenly abates, and occurs in an inter- al part.—And, *Misplaced*, When it takes place in any f the internal parts.

OF REGULAR GOUT.

This species of inflammation rarely occurs till the ge of thirty-five, unless the hereditary predisposition s very strong. It attacks sometimes suddenly, but is generally preceded by symptoms of indigestion, as flatulence, loss of appetite, cramp in the stomach, &c. and sometimes by head-ache, stupor, numbness, a sense of pricking in the thighs and legs; the day pre- ceding the attack the appetite generally returns much keener than usual. The fit comes on sometimes in the evening, but generally about two or three o'clock in the morning, and for the most part in the spring of the

year. The ball of the foot, or joint of the great toe, is commonly the seat of regular gout, the pain and inflammation of which uniformly increase, with more or less of a shivering, which abates as the pain becomes more violent, and is succeeded by a hot stage of the same duration as the pain, and with it gradually declines, when a gentle perspiration comes on, and the patient falls into a much-desired sleep.

Causes.—A sedentary, indolent manner of life, full diet, especially of animal food, and the excessive use of wine and other spirituous liquors,* are enumerated by authors as causes of gout.

Treatment.—The treatment of this nervous inflammation in the extremities, or what is termed the gouty paroxysm, must be regulated by the state of the constitution. If the general health of the patient be good, or if it were not preceded by symptoms of indigestion, as flatulence, cramp in the stomach, &c. the bowels should be well emptied by the following mixture:

Take of senna-leaves, two drachms; infuse in a quarter of a pint of boiling water for half an hour; strain, and add Epsom salt, half an ounce; compound tincture of senna, an ounce. Three table-spoonfuls to be taken every two or three hours, till it operates.

After which, three table-spoonfuls of the following mixture may be taken three times a day:

Take of camphorated julep, twelve ounces; volatile salt of hartshorn, one scruple; sweet spirit of nitre,† two drachms. Mix.

The immersion of the extremity in cold water, in this case, is generally very beneficial; and may, in a

* This disease, the frequent companion of wealth and indolence, has been so often induced by the excess of wine, that in every age it has justly been styled the offspring of Bacchus. This fact is sufficiently substantiated in the records of medicine, for gout is seldom or never seen in the habitations of poverty and labour. In youth, hard drinking is particularly injurious; it brings on premature decay, and more than any other cause, paves the way for the diseases of age before the meridian of life!

† The sweet spirit of nitre should be fresh, and well prepared; otherwise, by neutralizing the salt of hartshorn, it will destroy the property on which its efficacy depends.

ealthy constitution, assist Nature in the recovery of he tone of the nerves. The application of warm wa- er, by affording a conducting surface, is equally effi- acious, and less hazardous; for cold, when attended ith debility, may prove injurious.

An infusion of a vegetable poison *(Eau Médicinale)*, vhich appears to be the foxglove, has lately been in- roduced as a specific for gout; and by reducing the owers of the system, and especially the natural energy f the nerves, has in many instances succeeded in ter- ninating the paroxysm: but the apparent advantage btained by it is a dearly-purchased truce, for the nflammation returns again in a short time; and if the peration of Nature be kept off by a repetition of nedicine, a degree of nervous debility is induced, oc- asioning palsy, or sudden cessation of the vital func- ions. When the gouty inflammation has occurred in shattered constitution, the exhibition of the *Eau Médicinale* has been followed by the sudden death of he patient.* The application of cold water to the part, in such a habit is not less dangerous.

If the stomach be much affected with flatulency, cramp, or vomiting, or the constitution impaired by epeated attacks, or irregular or free living, half an ounce of the volatile tincture of guaiacum may be dded to the above mixture; and if acidity prevail in he stomach, two drachms of prepared natron. If the patient be advanced in years, or in a very debilitated state, the following medicine will be proper:

Take of volatile tincture of guaiacum, six drachms; camphorated mixture, six ounces; tincture of rhubarb half an ounce; honey, half an ounce. Rub the tinc- ure of guaiacum with the honey, in a glass mortar; hen add the other articles by degrees. Two table- spoonfuls to be taken every four or five hours.

If the pain be very violent, a few drops of laudanum may be given at bed-time. This medicine, by weak- ening the powers of the stomach, often prolongs the fits; and it is not an uncommon occurrence, after a

* Dr. Reece.

full dose of laudanum, for the gout to attack the stomach, and disorder the brain, so as to threaten the life of the patient. It should not, therefore, be employed, unless advised by an experienced practitioner, particularly when attended with general debility of the system. The acetic laudanum is much safer, and certainly more efficacious in procuring ease, in cases of gout, than the common laudanum. By its use, a respite of a few hours may be obtained; but the probability is, that it will prolong the fit some days, or even weeks.

When the gout attacks the stomach, or when it occurs in a debilitated habit, warm cordials are necessary; as the cardamom, peppermint or aniseed cordials; ether, or tincture of ginger. The feet should likewise be immersed in warm water, and afterwards well rubbed with flannel.

With respect to applications to the affected part, various opinions have been maintained by physicians, both ancient and modern. If the patient be plethoric, and his constitution but little impaired, the extraction of blood from the part by leeches or scarifications generally abates the pain, and shortens the paroxysm; but in people far advanced in years, or of weakly constitutions, death has been known to follow even the loss of a few ounces of blood. A blister near the part has been much recommended by Dr. Rush, and is much safer, and perhaps not less efficacious, than topical bleeding.

The immersion of the limb in cold water affords more speedy relief than any other application, and I have known many instances in which it has proved highly beneficial; but the cases were in a great measure local, being attended with no affection of the stomach, and the constitution not impaired. It is in these cases, I believe, that it has proved of such immediate and essential benefit, in the practice of others: but where the constitution is debilitated, and especially when the paroxysm is preceded by a disordered state of the stomach or head, it is an Herculean remedy; and if it do not cure the patient, it will proba-

ly kill him. Thus, as Dr. Kinglake remarks, its *uieting* effects are certain.

A gentleman, who has for many years been a great ufferer by gouty inflammation, has lately applied to ie inflamed part a liniment, composed of two ounces f olive oil, and two drachms of the vitriolic acid, with reat success. In a few hours after using it, although t the time confined to his bed, he has been able to alk with ease. This application, by producing a oist surface, and assisting Nature in her operation y gently stimulating the part, I have found very eneficial.

Gout being an inflammation of the nerves, the increased heat and pain are no doubt occasioned by an ccumulation of electric matter. In the treatment of out, it is therefore of consequence to produce a moist tate of the skin of the affected part, in order to favour he escape of this active principle. Gently rubbing he surface of the affected part with the soft electric rush, in the manner recommended for rheumatism, y conducting superabundant electric matter, I have ound highly beneficial, and in many instances to allay he pain in a few minutes.

An American physician some time since recommended the hop as a remedy for gout. In consequence f its anodyne property, it may, in some degree, assuage the pain; but, as a stomachic medicine, it is ery inferior to columbo, or camomile-flowers. It has een observed by an experienced physician, that gouty eople who have been in the habit of using malt-liquor trongly impregnated with the virtue of the hop, generally die suddenly.

Gouty subjects are much affected with inflammable as in the intestines, the expulsion of which uniformly ffords relief; and it is not unworthy of notice, that his air is discharged from the system in greater quanity as the fit approaches to its termination; its free xpulsion I have therefore always considered of a favourable import. The prevention of such an accumuation is certainly of some importance in the treatment f gout. The Jamaica ginger-powder, for this purpose,

has answered much better than any other aromatic, on account of its warming and invigorating the stomach and bowels, without increasing that feverish state of the constitution which spirituous liquors and the spices, which abound with an essential oil, are very liable to do. The Jamaica ginger has been much esteemed as a remedy for gout by some practitioners; and instances have been adduced in which it proved highly beneficial, particularly in the case of Sir Joseph Banks, by Mr. Stenhouse, which brought it into general use. In the prevention of gout, it is a very valuable medicine; but during the paroxysm, or when the system is attended with much fever, or plethora, the propriety of exhibiting it in the dose recommended by Mr. Stenhouse is much to be questioned.

Gout being an inflammation of nerves, the passions of the mind have very great influence on it. Van Swieten relates, from Hildanus, that a man, disguised to represent a ghost or spectre, took another, labouring under a gouty paroxysm, out of his bed, and carried him upon his back down stairs, dragging his feet and legs, which were the seat of his pain, down the steps, and placed him at last on the ground. The man thus treated, immediately recovered the use of his limbs, and ran up stairs again with great swiftness, and under the strongest impression of terror. After this incident, he lived many years free from any symptom of the gout. This celebrated author also relates a case of a man being cured by joy: "A person," says he, "who had for forty years been afflicted with the gout, was condemned to capital punishment, and in consequence thereof led to execution. Just when he expected death, he received an unhoped-for pardon, which affected his limbs in such a manner as to restore to them activity and strength, whereas before that event their use was nearly lost:" this person, as well as the other, lived many years totally free from the gout: and that celebrated physiologist, Haller, quotes a case still more extraordinary, of a cure of the gout by a violent fit of anger. From the influence of the mind on gout, we learn that it is a disease of

ebility; for the stimulating passions are uniformly eneficial, while the depressing passions are not in- apable of bringing on the paroxysms by prolonging . These effects favour the theory of Cullen, of the flammation being an operation of Nature to restore gour to debilitated or impaired nerves.

With respect to the management of the mind during paroxysm of gout, the most judicious practice is, erhaps, not to excite, but to moderate such passions are symptoms of the disorder itself; and to endea- our to restore, by any safe means, that calmness and anquillity of mind which those who are subject to e gout experience on the going off of the paroxysm, fit.

Regimen.—The diet, during a paroxysm of the out, must be regulated according to the patient's customed mode of living, the state of the constitu- on, and the violence of the symptoms. If the pa- ent have been in the habit of indulging in high-sea- ned dishes, and the free use of spirituous and vinous quors, this is not the time to abandon them entirely, rticularly if he be affected with symptoms of indi- stion, or the powers of the system be reduced by peated attacks of the gout, or age: they, however, ould be allowed in moderation. In other cases, a w regimen should be strictly adhered to, and an stinence from spirits and fermented liquors should so be enjoined.

Water, purified by distillation, is recommended by r. Lambe, as a common beverage for gouty patients. his author has lately published many instances in hich its adoption was attended with the most de- ded and permanent advantage.

When any swelling or stiffness of a joint remains ter the fit has ceased, it may be removed by the dili- nt use of the electric brush, gentle exercise of the rts; and, in case it prove obstinate, the following iment may be well rubbed over the part for half an our, and afterwards washed off with warm water, d the part wiped dry:

Take of olive-oil, an ounce and a half; vitriolic

acid, two drachms. Drop the vitriolic acid into the oil by degrees, and, after every ten drops, shake the bottle.

The prevention of gout may be best effected by regimen, and by attention to the digestive organs. Temperance, and exercise proportioned to the strength of the patient, will conjointly prove the best preventive. Accustomed habits of high-seasoned dishes, and spirituous and vinous liquors, by over-stimulating the nervous system, and secondarily inducing nervous debility, should be *gradually* abandoned; particularly if the patient be advanced in life, or his constitution much debilitated. As the quantity of cordials and rich dishes is diminished, so should the degree of exercise be increased. Particular attention should be paid to the state of the digestive organs, and especially to the prevention of acidity in the stomach; on any symptom of indigestion, it would therefore be advisable to take a dose of the following pills:

Take of compound colocynth-pill, one drachm; calomel, fifteen grains. Mix, and form into fifteen pills. One, two, or three of these pills may be taken in a morning, according to the state of the bowels and the strength of the patient. And,

Afterwards, the compound tincture of ginger and camomile, occasionally; or a small tea-spoonful of ginger-powder, two or three times a day.

It would also be proper to avoid all kinds of fermented liquors, and to take for the common beverage pure water.—The instructions given for the treatment of indigestion, equally apply to the prevention of gout.

As there is a disposition in gout to return in spring and autumn, greater attention to an abstemious diet at those periods will be particularly necessary. The pills above recommended, and the solution of prepared natron, the tincture of ginger and camomile, and sassafras cocoa, should be resorted to on the appearance of any symptoms denoting the approach of a paroxysm, by which means the recurrence of the disease may be generally prevented. The feet should always be kept dry and warm by means of flannel,

rse-hair socks; flannel next the skin will likewise proper.

OF ATONIC GOUT.

The cure of this species of gout must be effected improving the general health of the patient; for s purpose give the following stomachic mixture:

Take of the essential salt of bark, one drachm; dis-ve in half a pint of distilled water; add tincture of ger and camomile, two drachms. Two or three le-spoonfuls of this mixture may be taken three nes a day. Or,

Two tea-spoonfuls of the volatile tincture of casca-a, should be taken with an infusion of Jamaica gin-and camomile.

In case of nausea at the stomach, an emetic of ipe-cuan-powder, and a dose of equal parts of tincture senna and tincture of rhubarb, should precede the of these medicines. A generous diet and mode-e exercise are indispensably requisite. The feet uld be kept warm by the use of flannel socks and k-soled shoes.

OF RETROCEDENT GOUT.

When gout affects the stomach and intestines, relief o be attempted without delay, by the free exhibition warm brandy and water, with a little ginger-pow-; and if they do not prove sufficiently potent, ent spirit must be employed. A dessert-spoonful ether has, in this case, answered very well, to ch two drachms of paregoric elixir will prove an ful addition. The bowels should be fomented, the feet put in warm water, and afterwards rubbed h the flour of mustard-seed. When gout attacks head, the same means are to be pursued, with the lition of a large blister to the scalp. A strong stard-poultice to the feet may likewise be sub-uted for the warm water. When it affects the gs, two drachms of the paregoric elixir, with a tea-

spoonful of ether and sal-volatile, should be given occasionally; a blister applied over the breast-bone, and a mustard-poultice to the feet.

OF MISPLACED GOUT.

When, instead of the usual determination to the joints, the inflammation falls on the lungs, or any internal part, it often requires to be treated as a *primary inflammatory* affection, by blood-letting, application of blisters over the part and to the extremities, and the use of aperient and sudorific medicines. But these cases are always so much involved in ambiguity as to render them very improper for domestic medicine: they often perplex even practitioners of experience. Nothing, therefore, should be done (unless in cases of great emergency) without the sanction of a medical man of experience and judgment. If, however, the life of the patient be in imminent danger, and no experienced practitioner be at hand, a tea-spoonful of spirit of sal-volatile, and two of ether, may be given in cold water, and a mustard-poultice applied over the stomach, and to the feet.

Of the Gravel and Stone.

The gravel consists of small sand-like concretions, formed in the kidneys, and evacuated with the urine. In passing through the tubes (termed *ureters*) from the kidneys to the bladder, they often occasion a degree of pain, more or less acute, according to their size and form. When a piece lodges in the bladder, it gradually enlarges, and forms what is termed the *Stone*, which, when of a smooth surface, is attended with very trifling pain, till, from its weight and size, it produces mechanical inconvenience; such as numbness in the thighs, and spasms in the calves of the legs, in consequence of compressing the nerves leading to those parts. When the surface of the stone is hagged,

or its form angular, it often excites considerable irritation and mischief in the bladder, occasioning a slimy discharge with the urine, and not unfrequently a a quantity of blood, a constant inclination to make water and to go to stool, attended with straining, and often very acute pain. Men are more subject to stone than women, in consequence of the urethra of the latter more readily admitting of the evacuation of calculous concretions than that of the former.

Cause.—Hippocrates was the first who observed that these concretions were the consequence of hard water; and this opinion has been very generally adopted. Dr. Lister has recently confirmed it by an observation, that the inhabitants of Paris, who use much *hard* water in their aliment and beverage, are peculiarly subject to this disease; and Dr. Percival informs us, that a gentleman and lady in Manchester, who had suffered much from gravel, were greatly benefited by discontinuing the use of their pump-water, which was unusually hard, and drinking in its stead the *soft* water of a neighbouring spring. So beneficial was this change to the lady, that she did not experience the least symptom of the disorder for upwards of two years.

Many practitioners, from an analysis of the stone, have attributed its formation to the use of *acids:* were this, however, really the case, we should expect to find the disease most prevalent in those counties where an acid beverage is principally employed. Cider, the common beverage in Herefordshire,* is generally drunk in a state nearly approaching to vinegar, and yet in no county in England are calculous complaints more rare. Some authors attribute the disease to impaired digestion, to which may be added a deranged state of the secretory vessels of the kidneys, producing new combinations, the effect of which is the production of calculous matter.

* It is worthy of remark, that a case of stone has not occurred at the general hospital of this county since its establishment, being a period of thirty years.

Treatment.—When the gravel, or a small stone, is passing from the kidneys to the bladder, it often produces considerable pain, frequently attended with nausea or vomiting, which constitute what is termed a fit of the gravel. During this period the principal object of practice should be to relax the parts, and obviate inflammation, by the loss of blood from the arm, particularly if the patient be of a plethoric habit; the bowels should be opened by doses of castor-oil, and lavements of gruel; the latter of which will not only assist the operation of the castor-oil, but act as a fomentation to the parts affected; for this purpose, the liquid should be injected by means of a large syringe, that it may be thrown up higher into the bowels, than by the bladder and pipe usually employed. The warm bath, by relaxing the system, will prove a great auxiliary to these means. After the operation of the castor-oil, from ten to twenty drops of laudanum may be given, according to the severity of the pain.

The diet, during the fit, should be low; and the beverage, the almond-emulsion, barley-water, decoction of marshmallow-root, or linseed-tea.

When the calculus has passed into the bladder, which is known by the cessation of the pain, the patient should take three of the following pills every day, with the aerated soda-water:

Take of prepared natron, (that has been coarsely pounded, and exposed to a warm dry air till it has crumbled into a white powder,) two drachms; Spanish soap, two drachms; with oil of juniper, sufficient to make into sixty pills.

Dr. Falkner, of Bath, has published several cases in which this water has proved very beneficial; and in the practice of Dr. Blount, an eminent physician in Hereford, it has been equally successful. The supercarbonated natron is also a very excellent remedy and probably more powerful than the aerated soda-water. An infusion of the wild carrot-seed has been found to afford great relief in gravel; and the leaves of the bear's-wortleberry have certainly proved useful

n many instances of stone and gravel, particularly when attended with great pain, and coffee-coloured or bloody urine. Two or three ounces of the following infusion of these leaves may be taken two or three times a day:

Take of the leaves of the bear's-wortleberry, three drachms; infuse in a pint of boiling water till cold, then strain for use.

Spirit of turpentine, balsam of copaivi, sweet spirit of nitre, and soap-lees, have occasionally proved beneficial, and after the failure of the preparations of natron are well worth a trial.

Distilled water has proved in many instances so very beneficial in gravelly complaints, that I am inclined to believe, if a person would confine himself to its use as his general beverage, in every article of diet, he would in the course of time entirely get rid of the complaint.

Green Sickness

Is a disease peculiar to unmarried females, after the age of puberty. It very frequently appears at boarding-schools, and requires much attention. The disease is usually well marked, and consequently in general easily ascertained: a paleness and sallowness of the complexion; a palpitation of the heart; a difficulty of breathing upon exercise; a bloated appearance; an obstruction or diminution of the menses, and female weakness; a loss of appetite, and reluctance to exertion, in general sufficiently characterize it. Although it is frequently attended with the appearance of watery swelling of the skin, it is easily distinguished from dropsy, there being no diminution of urine; frequently that secretion is in great quantity, and limpid. Sometimes green sickness is accompanied with a cough; which, joined to the difficulty of breathing, affords a suspicion of hectic; but it is not attended with the fever and flushing of the cheeks which mark this dis-

ease; on the contrary, there is in the green sickness a heavy, bloated, pale or sallow cheek, with a laxity of the fauces, and of the muscles in general, and rarely a cough or fever: but should any hectic appearance supervene, the treatment must first be directed to the most prominent and dangerous symptoms, supposing this disease to be ascertained: if there be swelling of the belly and constipation, aloetic, or rhubarb and calomel, purgatives may be premised; if nausea or disgust at food attend, a vomit may be usefully exhibited, and after due evacuations, perhaps no remedy is more salutary than a combination of myrrh, steel, and alkaline salt, similar to that recommended by the late Dr. Moses Griffiths. It may be given in the following form two or three times a day:

Take of salt of iron, two grains and a half; gum-myrrh, salt of wormwood, each six grains; rub them together, and gradually add infusion of liquorice-root, one ounce and a half; nutmeg-water, half a drachm. Make into a draught.

It may be expedient to continue the preceding medicines for many weeks; and, if the bowels be properly cleansed, it is rarely that we meet with disappointment from their exhibition, with the aid of diet and exercise. In mentioning chalybeates, the use of chalybeate waters will be naturally suggested; but this remedy will not have the same beneficial effect if drank at home. Exercise is so essential to the restoration of this class of patients, that whatever remedies are recommended, this must be a concomitant.

Hæmorrhage, or Loss of Blood,

May proceed from too great an abundance of blood, where there is no error but in quantity; or it may be the consequence of the blood having acquired such a morbid tenuity as may enable it to pass through openings, which, in a healthy state, would not suffer it to pass. Those who lead sedentary lives, indulging much

t the same time in nourishing or stimulating food, an hardly escape such a preternatural fulness of the ystem as is likely to be productive of hæmorrhage; he evacuations not being proportioned to the quantity f nutritious matter taken, the due equilibrium cannot e preserved between the quantity of the circulating luids and the solids which contain them. The dimiution or suppression of accustomed evacuations, whether of those which are natural, or of those which have been induced by art or previous disease, will also conderably contribute to the formation of that diseased tate of the system in which hæmorrhage is likely to ccur. In these cases, much injury is done by frequent bleedings, which are sometimes resorted to when hæmorrhage has once occurred, and which actually promote that state of the system they were ntended to prevent.

When the above state of the system has been induced, nothing more is required than the action of one r more exciting causes to produce the disease. These re such as alter the regular circulation of the blood, s external heat; a considerable and sudden diminuion of the weight of the atmosphere; violent exercise; onsiderable efforts of the lungs; certain passions of he mind; cold, externally applied; and such postures f the body, and applications of ligatures, as may occasion a determination to, or accumulation of, the lood in particular parts of the body.

If the system has once suffered a loss of blood by ccident, by art, or by a spontaneous effusion, that uantity is not only quickly restored, but fresh blood s formed so fast, that a preternatural fulness is very oon produced, which is frequently succeeded by a eturn of the bleeding; this is again, in like manner, ollowed by a rapid restoration of the blood, fulness, nd hæmorrhage; these alternations of evacuation nd repletion, being thus repeated, a disposition to æmorrhage is occasioned, and the disease of course endered more difficult of removal; nor is this all, for n proportion to the length of the continuance, and requency of recurrence of hæmorrhage, will be the

danger of its occasioning other diseases, either by its continuance or suppression. The positions here advanced, which are proved by the daily observations of every attentive medical man, must shew clearly the danger of permitting, through neglect, or an ill-founded timidity, the continuance of hæmorrhage; the probability of its inducing future disease having been shewn to be in proportion to the quantity of blood which is permitted to flow.

The innumerable secretions made from the general mass of blood occasions a continual expense of that fluid; and exercise, as it promotes almost every secretion, so must it produce an increase in the consumption of blood. The quantity of blood thus expended, is restored by the continual accession of new blood, formed from the chyle, which is immediately derived from the various substances taken as aliment. The quantity of blood must therefore depend on the quantity of aliment from which it is produced, and the degree of exercise by which its expense is occasioned: in proportion as the one or the other of these preponderate, will a disposition to plethora or to the contrary state take place. To prevent the quantity of blood from exceeding its due proportion, exercise should be used; the quantity of food should be diminished, and should be composed of such substances as are nourishing only in a moderate degree, such as vegetables, milk, &c.

Proper means must at the same time be employed for keeping the bowels in a laxative state; and the circumstances which have been before described as exciting causes, must carefully be avoided. When hæmorrhage has actually come on, and it appears proper that it should be moderated, the application of every thing heating and stimulating must be carefully avoided. The air of the chamber should be cold, and no malt liquor, wine, or spirits, permitted the patient: this caution is necessary, because frequently the patient is freely supplied with these pernicious liquors with the intention of removing the sickness and faintness which accompany the discharge. The patient

hould be kept in such a posture as may least favour ne impetus of the blood towards the part from which flows. Hæmorrhages proceeding from a dissolved ate of the blood, will always require the most vigor- ns exertions for their suppression; since, by their ontinuance, they necessarily increase that morbid ate on which they depend.

When we consider how numerous the causes of hæ- orrhage may be, and how necessary it is to ascertain ne cause on which each case depends, before a deter- ination is made—whether the hæmorrhage shall be estrained, or suffered to continue—it must be admit- ed, that no decisive step ought to be taken until ompetent advice has been obtained: until then little nore should be done than removing any of the cir- umstances which are above enumerated, as likely to ecome exciting causes; and employing such means s may moderate the discharge, if it be violent, and ne patient apparently sinking. Skill is required in ne treatment of few diseases more than in those of his class; the case being often such, as from its rgency to require an immediate decision; the future ealth, and even existence, of the patient depending n the most active and vigorous means.

Of Head-ache.

No complaint is perhaps more prevalent in this ountry than head-ache. It is seldom a primary af- ection, but arises from a variety of causes.

Head-ache is very often the consequence both of n *increased* and *diminished* irritation of the brain, hen it is termed *Nervous Head-ache*. This species s generally produced by close application of the mind, articularly on abstruse subjects. By grief, anxiety, r any other strong passion. In consequence of the reat sympathy that exists between the womb and rain, females are very subject to this complaint. With hem it is very often periodical, and sometimes very

regular in its diurnal attacks. This species is often attendant on debility of the system, and is produced by great evacuations, as loss of blood, frequent suckling of children, &c.

Head-ache is likewise very often symptomatic of indigestion; for so great is the sympathy between the brain and stomach, that it is often difficult to determine which is really in fault. For people who are subject to preternatural determination of blood to the brain, are always more or less affected with indigestion, nausea, &c. in consequence of the slight compression of the brain from distention of blood-vessels. When it arises from a foul state of the stomach, it is generally termed *Sick Head-ache*, and is speedily relieved by vomiting. Nervous head-ache is also often connected with flatulence in the intestines. How this air should produce head-ache is difficult to say; but certain it is, that the most obstinate head-aches are often relieved by its expulsion from the intestines. Those who have had an opportunity of observing the morbid appearances of the brain, so frequently exhibited on dissection, will neither be surprised at the frequency or the obstinacy of complaints of the head; but, on the contrary, from the disease that is so often found in the membranes, and the tumors in the substance of the brain, that the sufferings of the patients were not much greater. A deposition of earthy matter in the coats of arteries, is often the cause of head-ache; and probably the blood-vessels are more frequently the seat of the pain than the brain itself. The blood-vessels are not only subject to a chronic inflammation, of which the deposition of earthy matter is the effect; but also to ulceration, which by destroying the coats of the vessel, blood becomes effused within the head, and fatal apoplexy is produced: hence apoplexy is not always the consequence of distention of the vessels, as is generally imagined.

Treatment.—When head-ache arises from *distention* of the vessels of the brain, the loss of blood will be proper, either by leeches or cupping; or if attended with a plethoric habit of body, ten or twelve ounces

f blood taken from the arm will prove more benefi-
ial; which, with the use of the following cathartic
ills, and a spare diet, and exercise, will generally
ffect a cure:

Take of compound colocynth-pill, one drachm;
alomel, fifteen grains. Mix, and form into fifteen
ills. Two to be taken for a dose.

If it resist those remedies, a blister should be ap-
lied to the nape of the neck, and the feet immersed
r five or ten minutes in warm water, and kept warm
y flannel socks. Ether may likewise be applied to
ne temples and forehead, and cold water to the head.
'eople subject to this species of head-ache will re-
eive great benefit from having their head shaved, by
ashing it every morning with *cold* water, and by
eeping the feet warm with flannel socks. The means
ecommended for the prevention of apoplexy, *(see*
poplexy) are applicable to this species of head-ache.

For the *Rheumatic Head-ache*, the tincture of guaia-
m, warm fomentations, a cathartic pill, small doses
the antimonial powder, and the warm bath, are the
ost powerful remedies. If it be attended with gene-
l plenitude, the loss of blood by leeches or cupping,
nd a blister to the nape of the neck, are necessary.
perient sulphureous water, has, in many instances,
ntirely cured the patient, after other apparently more
ctive medicines had failed.

For the cure of the *Nervous Head-ache*, the exciting
use should be avoided, and whatever is likely to
ritate the mind. If the digestive organs be affected,
n emetic should precede the exhibition of other me-
icines; after the due operation of which, the follow-
g mixture will prove highly beneficial:

Take of essential salt of rhatany-root, three drachms;
mphorated julep, three ounces; compound spirit of
nmonia, three drachms; mint-water, eight ounces.
hree table-spoonfuls to be taken three times a day.

If the patient be subject to costiveness, three
rachms of vitriolated magnesia may be added to the
bove mixture; or in cases of acidity predominating
the stomach, two drachms of prepared natron. I

have had repeated opportunities of giving this medicine a trial, in very obstinate cases of nervous head-ache, and in no one instance has it failed to produce the desired effect.

Ether may be applied over the part of the head most affected; and a little of the following powder snuffed up the nostrils, once in about twenty-four or forty-eight-hours; which, by exciting sneezing, and producing a discharge from the inner membrane of the nostrils, often affords instantaneous relief:

Take of the leaves of tobacco, one ounce; ditto of rosemary, six drachms; ditto of asarabacca, two drachms; white helebore-root, two drachms. Let them be well dried, and reduced to a fine powder.

If the patient be troubled with flatulency, a little ginger-powder may be taken in the common beverage.

When head-ache arises from indigestion, which is a very common cause of complaints of the head, the directions for the treatment of indigestion, will succeed in curing it.—*See Indigestion.*

The application of ether to the temples, washing the head with cold water, the cephalic snuff noticed above, a blister to the nape of the neck, keeping the feet warm by wearing flannel socks, attention to the state of the digestive organs, and avoiding full meals and spirituous or vinous liquors, with moderate exercise, will, generally speaking, prove highly beneficial in mitigating, if not effectually curing, chronic head-aches, from whatever cause they may arise. But in acute head-aches, from obstructed perspiration, or attendant on fevers, these remedies may not be proper, particularly the application of cold water, ether, or the sneezing powder. The cure of such head-ache must depend upon the nature of the complaint of which it is a symptom. In chronic, or periodical head-ache, it is likewise of consequence to attend to the secretions of the head, particularly of the ears, and nostrils: by increasing the former by introducing a little lamb's-wool moistened with camphorated oil, and the latter by the cephalic powder before noticed, the most obstinate head-aches have been effectually

ıred; and many instances of the most violent head-
:he have been known to terminate in a sudden secre-
ın of wax in the ears. Such directions may appear
tling to many; but in the cure of head-ache they
e often of greater efficacy than the most potent
edicines.

Of Heart-burn.

Heart-burn is a burning sensation about the pit
the stomach, sometimes attended with great anxiety,
fficulty of breathing, acid eructations, flatulence,
quietude, and retching to vomit. It is generally the
nsequence of bad digestion, and a frequent attend-
ıt on pregnancy.

Causes.—The acidity producing the pain in the
omach, commonly, but improperly, termed *heart-burn*,
ıs been supposed to be the effect of fermentation of
getable food, in consequence of weakness of the
gestive organs; but it is very doubtful whether fer-
entation ever takes place in the stomach to such a
gree as to produce an acid. Some days are neces-
ıry for the production of vinegar by fermentation;
ıt very frequently within a few minutes after taking
glass of weak wine, sour belching will denote the
istence of a strong acid in the stomach. The differ-
ıce of the acids affords another objection. The acid
oduced in the stomach yields a taste very dissimilar
that of vinegar: those who are subject to the un-
easant occurrence of acid eructations, or vomiting,
ıow that its taste is very different from that of vinegar.
he acid formed in the stomach is rather of an animal
ıan vegetable nature. A deficiency of the mucus
hich defends the coats of the stomach, the irritation
f pungent or spicy aliments, and ulceration or orga-
c diseases of the stomach, are causes of heart-burn.

Cure.—The treatment of heart-burn must depend
ı its exciting cause. When it is produced by acidity
ı the stomach, and the bowels are confined, or in a

regular state, magnesia, or prepared natron, will, by neutralizing the acid, speedily relieve the pain; but when the bowels are too much disturbed, or the patient is subject to habitual purging, the cretaceous powder, or lime-water, will answer best; and, as the stomach is always more or less in fault, some bitter medicine should accompany the use of these medicines, in order to prevent its recurrence: for this purpose the following mixture, if not attended with purging, will prove very beneficial, after the operation of an emetic:

Take of prepared natron, a drachm and a half; spirit of sal-volatile, one drachm; tincture of ginger and camomile, three drachms; pure water, seven ounces, Two table-spoonfuls to be taken three times a day.

If the patient have an aversion to medicine in a liquid form, the following pills may be substituted for the mixture:

Take of extract of camomile-flowers, one drachm; dried natron, half a drachm; powdered rhubarb, one scruple; oil of caraway-seeds, eight drops. Mix well together, and divide into twenty-four pills, two or three of which are to be taken twice a day.

A draught of spring water generally affords relief, by diluting the acidity in the stomach. The diluted vitriolic acid, fifteen drops in a glass of water, will often succeed in curing heart-burn, after the absorbent and alkaline remedies have failed to remove it entirely, by preventing the formation of gastric acid. The same rules as to diet and exercise should be observed as recommended for indigestion.

If the pain should recur, notwithstanding the use of these remedies and proper attention to diet, and the patient be advanced in years, an organic disease of the stomach may be suspected; when one of the following pills should be taken every night for a week, and repeated every ten days:

Take of prepared calomel, seven grains; extract of poppies, one scruple. Mix well together, and divide into seven pills.

When a deficiency of mucus is the cause, animal jelly will be proper; and when it occurs in a gouty

ıbit, two tea-spoonfuls of the volatile tincture of cas-
ırilla, in a wine-glassful of lime-water, every three or
ur hours, will generally afford relief.

When it accompanies pregnancy, the solution of
psom salt, with the use of the diluted vitriolic acid,
as frequently succeeded: but such cases often re-
uire a variety of treatment, according as it is attended
ith a relaxed or costive state of the bowels, debility
· plethora.

Of Hiccup, or Hiccough.

Hiccup is a spasmodic affection of the midriff, and
nerally arises from irritation produced by acidity in
e stomach, error of diet, poison, &c.

Cure.—When acidity is the cause, twenty-five drops
sal-volatile, with a tea-spoonful of magnesia, in a
ass of pure water, will afford relief, and its recur-
nce may be prevented by the use of the following
ixture:

'Take of extract of rhatany-root, three drachms;
ssolve in twelve ounces of water; and add aromatic
ncture of rhatany-root, one ounce; spirit of sal-vola-
e, two drachms. Two or three table-spoonfuls to
taken every three or four hours.

When it is the consequence of improper food, an
netic will be necessary; and when produced by poi-
n, the means recommended for counteracting the
ects of poison should be immediately resorted to.

If it should continue obstinate, or amount to spasms,
ea-spoonful of ether, with eight drops of laudanum,
a glass of cold water, will prove the best remedy.
her may likewise be applied to the pit of the sto-
ach, and the feet immersed in warm water.

This affection is often cured by whatever *suddenly*
rests the attention, whether the passion connected
erewith be of the stimulating or debilitating kind.

In children, hiccup is often produced by the irrita-
n of acidity in the stomach, in consequence of being

over-fed; in which case magnesia and rhubarb, in a little mint-water, afford the best remedy: but when it occurs in bowel-complaints of long standing, the compound cretaceous powder will prove more beneficial. People subject to hiccup should particularly attend to the directions given for the prevention of indigestion. *See Indigestion.*

Of the Hooping or Chincough.

This disorder is infectious; and, the system once infected being secure from future attacks, children are generally the subjects of it.

Symptoms.—It commences with the symptoms of common cough, which gradually becomes more violent till it is evidently convulsive, the patient, at times, not being able for a considerable interval to inspire; and when inspiration is effected, it is attended with a shrill kind of noise, like the crowing of a cock. These fits, for the most part, occasion so great a determination of blood to the head, that a small vessel of the membrane lining the nostrils often gives way. The eyelids and eyes appear much swelled, and the fit often terminates in vomiting. It is seldom attended with continued fever.

Cause.—It is produced by the action of a contagious effluvia, which, in the first instance, excites irritation in the membranous lining of the wind-pipe, and its branches, and afterwards extends to the midriff, and the muscles of the chest engaged in respiration. The seat of morbid irritation is the same as that of asthma, and its effects are somewhat similar.

Treatment.—The mode of treatment must be regulated by the state of the constitution, for the weakly and robust are equally liable to receive the infection. If the general health of the patient be good, and particularly if the system be plethoric, the loss of blood by leeches, or cupping, will be necessary, to prevent the violence of the cough doing mischief to the

rain or lungs.—The cure may then be attempted, rst, by an emetic of tartarized antimony-wine; and terwards the following mixture:*

Take of ipecacuan-powder, ten grains; tincture of safetida, one drachm; laudanum, ten drops; pure ater, two ounces. Mix. To a child of two years d, a tea-spoonful may be given every three hours, creasing ten drops for every additional year.

A pitch-plaister should be applied to the pit of the omach; or, if attended with pain in the chest, a blis- r over the breast-bone or between the shoulders. the early stage of the complaint, these remedies ill generally prove sufficient to effect a cure; but if y neglect the disease be once established, it will of- n run its course in defiance of the most powerful edicines.

This disorder may often be effectually cured by atting the system under the temporary influence of vegetable poison; for this purpose the extracts of emlock, the henbane, and deadly nightshade, have een employed by different practitioners, and each as its advocates. As children are differently affected y these medicines, it is impossible to give a general rm for their exhibition; for unless a certain effect be roduced in the system to counteract the action of the ontagion, it will prove of no avail. The hemlock is uch recommended by some writers, who prefer the xtract; but the powder of the herb is unquestionably e best preparation, and the only one to be relied on. ome physicians prescribe it with other medicines, as rup of poppies, ipecacuan, and oxymel of squills; ut as they may destroy its peculiar properties, it ould be given only in a very simple vehicle. The llowing form is safe; and when properly managed, as to affect the system, which is manifested by nau- a and giddiness, it will seldom fail:

* The efficacy of this medicine principally depends on the asafetida contains; which, on account of its nauseousness, is generally rejected children. In such case it may be given clysterwise, by dissolving n grains of asafetida-gum in three or four ounces of gruel.

Take of powdered hemlock-leaves, one scruple; mint-water, two ounces; simple syrup, two drachms. Mix. A tea-spoonful to be given three times a day, to a child of any age, increasing the dose each time about ten drops, till it produce the effects above noticed.

An emetic should always precede the use of this medicine; and if acidity prevail in the stomach, the occasional exhibition of magnesia, or prepared natron, will also be necessary; to which a little rhubarb-powder may be added in case of costiveness. The extract of tobacco, in the dose of one or two grains, dissolved in a little simple water, is a very favourite remedy for hooping-cough with many physicians in Germany. It is a more potent remedy than hemlock, henbane, or the deadly night-shade, yet probably not more efficacious.* The application of a blister over the breast-bone, or between the shoulders, is more particularly necessary if the child be born of consumptive or scrophulous parents, as in such subjects the cough is most likely to prove obstinate, or to produce some serious mischief.

When the disease is attended with general debility, the loss of blood and blisters are improper: in this case, the rhatany-root, or bark, combined with soda, will prove very beneficial, in the following form:

Take of decoction of rhatany-root, or of Peruvian bark, six ounces; prepared soda, one drachm; tincture of cardamom-seeds, half an ounce. Mix. One table-spoonful to be taken three times a day.

When the disease has induced a considerable degree of debility, a change of air is generally very beneficial, as well as cold bathing.

It requires, however, much judgment to determine when such medicines are proper; for, although the patient should be much reduced, there may be a preternatural distention of the vessels of the lungs, or disposition to inflammation; in which cases any strengthening medicine would assuredly prove very injurious.

* This medicine, if used at all, should be given with caution, especially to very young children.

Dr. Hugh Smith, after observing that emetics occasionally repeated are of great service, and blisters when the symptoms are urgent, directs the following:

Take of musk-julep, six ounces; paregoric elixir, half an ounce; volatile tincture of valerian, one drachm. From one to three table-spoonfuls to be taken every three or four hours.——*N. B.* A child of two years old should have only half a spoonful at most.

The tincture of artificial musk has been lately much recommended as a specific for hooping-cough. It is given in the dose of ten to twenty drops, in a little barley-water, two or three times a day.

The acetated ceruse, when *judiciously* administered, I believe to be the most efficacious remedy for hooping-cough with which we are acquainted. The following is the best form for administering it:

Take of acetated ceruse, four grains; syrup of poppies, two drachms; dill-water, two ounces. Mix.—Two tea-spoonfuls to be given to a child of two years old ten, and a dessert-spoonful to an adult, every five hours.

This mixture generally succeeds in curing the disease in three days, after which its use should be gradually discontinued. It is a very powerful medicine, and should be employed only under the direction of a medical man, as in the hands of ignorance it may be productive of bad effects.

The diet should be adapted to the strength and age of the child. In general, equal parts of barley-water and fresh milk will be sufficient.

When this disease proves fatal, it is either by producing convulsions, or inflammation of the lungs or brain; and in scrophulous habits, consumption of the lungs; the prevention of which should be a principal object of practice.

Of Hypochondriacism.

This disease, commonly called *Vapours* or *Low Spirits*, is distinguished by a concurrence of the fol-

lowing circumstances: — A languor, listlessness, or want of resolution and activity, with respect to all undertakings; a disposition to sadness, and timidity, as to all future events; an apprehension of the most unhappy state of them, and therefore, often on slight grounds, a dread of great evil. Such persons are particularly attentive to the state of their own health, and to the smallest change of feeling in their bodies: from any unusual sensation, perhaps of the slightest kind, they apprehend great danger, and even death itself; and, in respect to all these feelings and apprehensions, there is, for the most part, the most obstinate belief and persuasion. It is generally attended with symptoms of indigestion, but not always; and sometimes with melancholy.

Treatment.—No disorder admits of greater scope for the management of the passions than hypochondriacism, which manifests itself in its effects on the mind and spirits. Greater delicacy, however, is here requisite than is generally allowed by practitioners. It is the practice of such patients often to change their medical attendants, which is certainly not altogether inconsistent; for if the physician do not admit the *reality* of the disease, it is not to be supposed that he will take much pains in curing it, or to avert a danger of which he entertains no apprehension. The sufferers are mostly of a gloomy disposition, and subject to great despondency of mind concerning their own situation in point of relief, and want cordials and exhilarating remedies to the mind as well as the body. To treat such disorders as merely imaginary, generally irritates, and induces a belief that their friends have but little concern for their safety and welfare; and, on the other hand, to coincide in opinion concerning the melancholy situation of such persons, depresses the spirits, and tends above all things to aggravate the complaint. The most judicious course is to endeavour to excite the fortitude of the sufferers, by representing to them, how unworthy it is for a brave and resolute character to be always complaining of misfortunes which are the common lot of mankind; that it is more

anly to struggle with adversity, than to sink without sistance beneath its pressure. We should also endeavour to abstract the mind as much as possible om reflecting on their own situation and condition of alth.

The firm persuasion that generally prevails in such tients, does not allow their feelings to be treated as aginary, nor their apprehensions of danger to be considered as groundless, though we may be persuaded it the case in both respects. Such patients are not to treated either by raillery or reasoning; the best ay is to keep the mind closely engaged in some use- l or agreeable pursuits; hence we learn the superior lvantages of those situations in life which more imediately call for intellectual exertions and bodily ercises. "Industry seldom fails to place us above ant, and activity serves us instead of physic." In ct, none are so wretched as those who have nothing do; they are useless to others, and a burden to emselves.* Constantly impressed with the apprehenon of some imaginary evil, they either become the ctims of despondency, or the dupes of ignorant and principled pretenders to physic, whose sole aim is enrich themselves at the expense of the follies or nceits of mankind.

As it is the nature of man to indulge every present notion, so the hypochondriac cherishes his fears; d, attentive to every feeling, finds, in trifles light as r, a strong confirmation of his apprehensions; his re, therefore, depends upon the interruption of his tention, by diverting it to other objects than his own elings. Whatever aversion from application to any nd may appear, there is certainly nothing more percious to them than absolute idleness, or a vacancy om all earnest pursuits. It is owing to wealth admitting of indolence, and leading to the pursuit of ansitory and unsatisfying amusements, or to that of haustiug pleasure only, that the present times

* "Absence from occupation is not rest;
"A mind quite vacant is a mind distrest."

exhibit to us so many melancholy instances of this depraved state of imagination. The mind should not only be diverted from the bodily affliction, by employments suitable to the patient's circumstances, and situation in life, and unattended with much emotion, anxiety, or fatigue. Within doors, company which engages attention, and conversation of a cheerful kind will be always found of great service.

Mechanical means of interrupting thought should be employed. Walking is seldom of this kind; though, as gratifying to the restlessness of hypochondriacs, it has sometimes been found useful. Riding on horseback, or in a carriage of any kind, or sailing in an open boat, on account of engaging the mind, is generally beneficial: but the exercise that will prove most effectual, is that which is employed in the pursuit of a journey: first, because it withdraws a person from many objects of uneasiness and care, which might present themselves at home. Secondly, as it engages the person in more constant exercise, and in a greater degree than is commonly taken in an airing near home. And, lastly, as it is constantly presenting new objects which call forth the person's attention.

The symptoms of indigestion, and hysteric complaints, that so frequently attend this state of mind, although the effect rather than the cause, are objects of practice, inasmuch as they tend to aggravate and realize the false apprehensions of the patient. These secondary affections require the same mode of treatment as recommended for indigestion and the hysteric disease. Warm bathing, and warm tea and coffee, which are hurtful to people with bad digestion, generally afford relief to the hypochondriac.

The ancient physicians referred the cause of this disease to an indolent state of the liver and other viscera, situated beneath the spurious ribs, technically termed *hypochondria;* hence is was named by them the hypochondriac disease: and, as these viscera are in all cases more or less obstructed, it will be advisable to administer an alterative aperient medicine, with a stomachic; such as the following:

Take of Rufus's pill, one drachm; prepared calo-
el, fifteen grains. Mix well together, and divide into
teen pills: of which two or three may be taken at
ing to bed, two or three times a week. And three
ble-spoonfuls of the following mixture two or three
nes a day:

Take of extract of rhatany-root, three drachms;
irit of sal-volatile, four drachms; camphorated mix-
re, twelve ounces. Mix.

The rules that are given for the diet of people affect-
l with indigestion, should likewise be observed by
pochondriacs. *See Indigestion.*

Hypochondriasis is often accompanied with false
d perverted notions of the Creator, with gloomy
ews of life, and a lingering dread of death. On this
casion we can defy the reproaches which are so often
rown out on the *uncertainty* of medicine, and recom-
end a *certain* cure; a corroborant for the mind, and
cordial for the heart. If the curiosity of the reader
excited by this declaration, it may be presumed
s hopes will not be disappointed, when he is refer-
d to the doctrine of the New Testament. That doc-
ne impresses the most cheering notions of the Deity,
the father and friend of man; who is studiously
omoting our greatest good in all the varied circum-
ances of our lives: it teaches us that we are con-
antly under his guard and protection; and that even
e sufferings which he inflicts, are intended for our
nefit. Here we may find a solution for every anxi-
s doubt, and a place of refuge from every intrusive
re. Hence we learn that life is only a probationary
ate; that it must consequently be chequered with
od and evil, in order to form a school of wisdom, in
hich piety may be disciplined for the fruition of eter-
ty. To that eternity, it teaches us that death is the
trance; and, consequently, that the termination of
r mortal existence, which is often such an object of
rror to the hypochondriac, ought to be regarded as
e commencement of unspeakable serenity and joy,
such as are prepared for it.

The prevailing temper of the mind is often formed

by religion: for nothing can tend more to ennoble and strengthen it than an intercourse with Supreme Perfection. The pure love of God, shed abroad in the heart by the Holy Spirit, produces the most sincere love of man; hence, true devotion humanizes our manners, tames our unruly passions, and exalts and expands the mind: it smooths what is rough, and softens what is fierce in our nature; it promotes a humble submission to the will of Heaven, and cheerful contentment with our lot in this transitory existence. The devout man regards life, with all its interests, as a very small part of human existence; and, looking forward to the eternity to which it leads, discovers fresh subjects of admiration and gratitude.—He says to his Creator, his Redeemer, his Lord, Let the men of the world have *their portion in this life; be it mine to behold thy face in righteousness, and when I awake, to be satisfied with thy likeness.*

Hysteric Fits.

In females the nervous system is more excitable than in males, and in them a great sympathy exists between the brain and uterus, so that from slight irritation in the latter organ, the whole nervous system is often so violently disordered as to occasion the peculiar convulsion and state of mind termed *hysteria*, or hysteric fits. In males there exists a great sympathy between the brain and genital system; and from an increase of which, with a morbid excitability of the nervous system, arises the disease termed the hypochondriasis of youth.

Symptoms.—The hysteric fit commonly begins with some pain and fulness on the left side of the abdomen, from which a ball* seems to move, with a grumbling noise, into the other parts of the bowels, and making

* This sensation is usually termed the *Hysteric Ball*, and is probably produced by a spasmodic contraction of the muscles of the gullet.

s it were, various convolutions, seems to move into the omach; and more distinctly still, rises up to the top the gullet, where it remains for some time, and, by mpressing the wind-pipe, gives a sense of suffocation; hen the patient is affected with a stupor or insensi- lity, and the body is agitated with various convul- ons: commonly the convulsive motion of one arm pro- uces a beating the breast very violently and repeat- lly with the fist closed. This continues for some me, with slight remissions and renewals of the con- ulsive motions; which at length cease, leaving the atient in a stupid and apparently sleeping state. More less suddenly, and frequently with repeated sighing nd sobbing, together with a murmuring noise in the owels, the patient returns to the exercise of sense and otion, and generally without any recollection of the veral circumstances that had taken place during the t.

In females, this disease occurs from the age of pu- erty to that of thirty-five years; but very rarely ppears before the former, or after the latter of these eriods, and generally occurs about the time of men- ruation: it affects the barren more than the breeding oman, and the sanguine and robust more than the hlegmatic and melancholic.

It sometimes arises in young women from a peculiar rn of mind, when the passions are high, and the ima- nation is heated.*

Treatment.—The morbid irritability of the nervous ystem attendant on this disease arises either from creased vitality, or debility; the treatment must, herefore, be regulated by the state of the constitution. the patient be in a debilitated state, the fit may be lieved by the following mixture:

Take of tincture of asafœtida, three drachms; sal olatile, two drachms; camphorated julep, six ounces.

* A late author justly observes, "That the novels that fill our cir- ulating libraries, which are read with avidity both by mothers and ughters, under the mask of morality, are more injurious to female rtue than the most openly licentious and immodest publications."

Mix. Two table-spoonfuls to be taken every three or four hours. To each dose of which, in obstinate cases, a tea-spoonful of ether, and ten drops of laudanum, may be added.

The feet should be immersed in warm water, and spirits of hartshorn, or smelling salts, applied to the nostrils, and cold water sprinkled over the face. If the patient be incapable of swallowing, two drachms of the tincture of asafœtida may be administered clysterwise, in half a pint of gruel; and in case the subject be young and plethoric, the loss of six or eight ounces of blood from the arm will be necessary: bleeding, however, should not be employed, without the sanction of a medical practitioner.

In an hysteric fit, a very simple remedy is generally at hand. Take brown paper, roll it loosely together, and set it on fire; extinguish the blaze, and hold the smoking paper under the nose of the patient. If needful, repeat this till the fit be removed.

Hysteric fits often arise from a disordered state of the digestive organs; and in all cases the nervous system is rendered irritable by it, and consequently promotes the hysteric affection. During the absence of the fit, it will, therefore, be proper to strengthen the stomach, and of course the nervous system, by the use of a tonic mixture, such as the following:

Take of extract of rhatany-root, three drachms; dissolve in twelve ounces of water; and add aromatic tincture of rhatany-root, one ounce; spirit of sal volatile, two drachms. Mix. Two or three table-spoonfuls to be taken every three or four hours. To which a drachm of prepared natron may be added, in case acidity prevail in the stomach.

Costiveness should likewise be obviated, by taking frequently in a morning a dose of the solution of the Epsom salt. Cold bathing will also prove very beneficial, by diminishing the irritability of the nervous system.

If the patient be of a full habit of body, or subject to head-ache from over-distention of the vessels of the brain, it will be advisable to take eight or ten ounces

blood from the arm, and to unload the intestines by opening mixture. If the affection occur at the eriod of menstruation, which is generally the case, lacing the feet in warm water of about 100 degrees, nd the use of an aperient medicine, will supersede the ecessity of bleeding.

A morbid sensibility, which always accompanies is complaint, is very liable to be excited by the pas- ons of the mind: nothing contributes to aggravate it ore than indolence and vacancy of mind. Dr. alconer therefore judiciously observes, that some teresting pursuit, that will occupy the attention, hould by all means be sought and assiduously fol- wed. Even fear itself, gradually introduced, and here no immediate danger is apprehended, has been fficacious in preventing this disorder. The displea- ure of a parent, supposed likely to be incurred by the eturn of the hysteric fit, has contributed to prevent : and it is noticed by this able writer, that during he troubles in Scotland, in the years 1745 and 1746, his disease scarcely made its appearance.

Hysteric fits are very apt to recur on the sight of eople so affected. Dr. Falconer observes, that he nce had an opportunity of seeing an instance of this ind at a public watering-place:—a lady was seized ith hysteric convulsions during the time of divine ervice; in less than a minute six persons were affect- d in a similar manner; some of whom had never be- ore been subject to such attacks, but were notwith- tanding violently agitated and convulsed. But though uch instances as these shew the propriety of prudent aution, yet *too great* a solicitude to avoid every thing kely to give uneasiness, especially if such solicitude e very apparent, will probably do as much mischief as ervice. Nothing so much enhances the apprehension f danger, or so often causes those on whose account he care is taken to believe the hazard greater than it eally is; and such circumstances frequently recur- ing, keep them perpetually in a state of painful irri- ability, which in reality constitutes the disorder. It would be much better to inure such persons *gradually*

to the common occurrences of life, and to the occasional mention of such things, which, if not magnified by the relaters, or dwelt on as meriting particular attention, will come in time to be disregarded, and their effects destroyed.

Instead of this, it is too usual with parents to foster the sensibility of their children, especially females, to an unnatural degree, by officious attention to remove every thing that can give the least interruption to pleasure, or even awaken the mind to its natural and necessary exertions. Affection contributes its share to enhance these complaints: an *unnatural* and *morbid sensibility* is often encouraged under the idea of *delicacy* and *tender feelings*. But if we examine human nature more accurately, we shall find that the *liberal* and *truly amiable virtues* of *humanity* and *benevolence*, are much more frequently found in persons of a *steady* mind and temper, who have experienced variety of circumstances, than in those who have passed their lives in a regular course of luxurious indulgences, which always generate selfish and mean sentiments.

Of Incontinence of Urine.

This disease is an involuntary evacuation of urine, from an inability to retain it.

Causes.—It is generally the consequence of weakness or palsy of the muscle of the bladder; sometimes it arises from calculous concretions irritating the neck of the bladder, or from injury of parts in the operation for extracting the stone; from pressure of the womb in a state of pregnancy; and very frequently, in women, from a communication between the bladder and vagina.

Treatment.—When it arises from the want of strength in the muscular fibres of the bladder, a blister should be applied to the lower part of the back bone, or to the part termed the *perinæum*.

A tonic mixture, such as tincture of muriate of iron

een or twenty drops, in a little water, twice a day, en the stomach is empty.

For a child who is accustomed to wet his bed, this dicine in a quantity proportioned to his years, will very proper, and probably succeed in lessening at st, if not in removing, the infirmity.

The above drops, with cold bathing, electricity, and enerous diet, will probably succeed in recovering tone of the bladder.

When it is occasioned by stone or gravel, it requires same treatment as recommended for the latter dis-e. When it is the effect of injury sustained in the eration for the stone, great relief is afforded in males the pressure of the instrument called jugum, *a yoke*, l in females by the globular pessary. When it is duced by an impregnated womb, an horizontal ition should be observed as much as possible. en a communication exists between the bladder l vagina, it will scarcely admit of cure or relief. is distressing case is generally produced by inflam-tion, and consequent ulceration, succeeding diffi-parturition. It is often attributed to palsy or loss one in the muscular fibres of the bladder, and as h, it has been frequently treated by routine phy-ans, who have been considered eminent by the lic, to the great injury of the patient; practitioners uld therefore satisfy their minds as to the *real cause* he disease, before they prescribe *active* remedies its cure.

Of Indigestion.

THE animal as well as the vegetable kingdom de-s its nourishment or support from the earth. From vegetable, branches spread into the earth, termed s, and the nourishment they absorb from it is con-ed to every part of the trunk; this, therefore, flou-es according to the richness of the soil. In the nal, the intestines answer the same purpose as

the root to the vegetable. He receives his food by the mouth, which, after being divided by the teeth, is conveyed to the stomach to be assimilated, or converted into animal manure. After it has undergone this process, it passes through the intestines, that the chyle formed in the stomach may be taken up by the absorbent vessels, and by them conveyed to the mass of blood, to be distributed over the body for its nourishment. On the state of the stomach, and quality of the aliment, not only the health of the body depends, but in a great measure the successful treatment of most of the diseases that assail it, particularly those of a chronic kind. It is also of great consequence that the refuse of our food, or fecial secretion of the intestines, should be duly evacuated: if the feces be allowed to remain in the intestines more than twenty-four hours, decomposition will take place, and a quantity of gas be disengaged, which, by distending the canal, is often productive of great irritation and mischief. There exists a great sympathy between the brain and stomach, so that irritation in the latter, or indigestion, by disturbing the brain, is often the means of bringing constitutional diseases into action; and in many cases of indisposition, in consequence of this great sympathy, it is often difficult to determine whether the brain or stomach were primarily affected. When the stomach does not duly perform its office, a very powerful acid is often formed which renders some active remedies inert, as the soda or kali, when administered in stone and gravel; while to others a degree of activity is given, which produces very injurious effects on the stomach and bowels, as is very often the case with mercury and antimony. Hence it is of the greatest importance, in many diseases, to prepare the stomach for the exhibition of such remedies; in the use of which it may be necessary to continue for some time, for the purpose of correcting any local or general diseased action.

Symptoms.—A loss of appetite; disengagement of air, producing distention of stomach and bowels, often attended with eructations; heartburn; squeamishness

metimes acid vomiting;—the body at length, not ing properly nourished, becomes emaciated and uch debilitated; sometimes attended with nervous itability, and in elderly people with collection of ucus in the stomach and upper part of the gullet, d sometimes in the palate.

CAUSES.—The principal cause of indigestion is orbid irritation of the stomach, which may be the nsequence of the too free use of spirituous liquors,* poor diet, the over-distention of the stomach, too eat a quantity of warm relaxing liquors (as tea and ffee,) acid unripe fruit, an indolent and sedentary e, close application or anxiety of the mind, or whatver may tend to weaken the digestive organs. A iated or deficient secretion of the gastric juice is ewise a frequent cause of bad digestion.

It is sometimes the effect of diminished irritation, in cases of palsy.

The prevalency of indigestion in this country may attributed to inactive life, to error of diet, and the cessive use of spirituous and vinous liquors. With spect to our natural food, the formation of the teeth, well as intestines, prove that we are destined to live th on animal and vegetable aliment; and we find e flesh of animals, with a proportionate quantity of getables, to agree best with the stomachs of persons health, and to afford the most substantial nourishnt to the body.† It is not, however, in the quality, t the *quantity* of food, in which man generally errs. greater quantity should be taken than is required

* Spirituous liquors disorder the stomach by their chemical action he internal coat, and by disturbing the brain: but in some subs, where they do not produce the latter effect, an excessive use of n is not followed by symptoms of indigestion. Want of appetite bad digestion are, however, generally the common complaints of nkards; as the frequent use of spirits, by injuring the coats of the nach, must sooner or later occasion a vitiated secretion of the ric juice.

† What is the exact proportion of animal and vegetable nourishment ch is most conducive to health, cannot perhaps be fully ascertained: we may admit it as a general rule, that two-thirds or three-fourths egetables, to one third or fourth of animal food, is most proper.

by nature to supply the waste the body has sustained, which must depend on the degree of exercise or fatigue to which it has been subjected, and not for the gratification of *artificial* appetites excited by the use of bitters or spirituous liquors. That nothing strengthens the digestive organs more than exercise, is evinced by the great appetite and good digestion of people who are compelled by necessity to earn their bread by their daily labour.* The principal cause among the higher class of society is, the practice of drinking a quantity of wine during and after dinner. The port and sherry wines consumed in this country are mixed with a quantity of strong brandy, to render them fit for keeping during the voyage; so that, instead of being pure wine, they are in reality a proof spirit. This spirit is extremely pernicious to animal life, and its repeated use will assuredly, sooner or later, destroy the most robust constitution: for after the stomach has been accustomed to its stimulus for some time, it requires a repetition to keep up its effects, and, as life advances, so an additional quantity becomes necessary: a degree of sub-irritation of the whole system is thus produced, which is intolerable when the system is not under the cheering influence of the poison; derangement in the structure of the stomach takes place and the foundation of the most distressing complaint that can possibly assail the human frame is laid before the meridian of life!† The great numbers tha

* Dissection demonstrates, that the coats of the stomach of a labou ing man are very considerably thicker and stronger than those of sedentary person.

† Ardent spirits harden and contract the animal fibres; hence t nervous energy of different organs is gradually destroyed, and t vessels for conveying fluids are lessened in their diameter, and ul mately obstructed. Morbid structure of pylorus, and liver especiall are frequent concomitants of habitual inebriety. But the intestin the pancreas, the spleen, and the kidneys, are also liable to the sa affection; which, after a certain time, is incurable, and often speed fatal. The dram and purl drinkers may sooner experience these ev than other drunkards; but even the guggler of small-beer has no curity against them: nay, so sure and uniform is this effect, that distilleries and breweries where hogs and poultry are fed on the se ments of barrels, their livers and other viscera are diseased like th

of diseased stomachs and apoplexy, brought on the abuse of spirits, is a melancholy proof of this ertion.

Three kinds of appetites may be observed, *viz.* the *tural appetite*, which is equally stimulated and satisd with the most simple dish, as with the most palaole; the *artificial appetite*, or that excited by stoachic elixirs, spirits, pickles, digestive salts, &c. d which remains only as long as the operation of ese stimulants continues; and the *habitual appetite*, that by which we accustom ourselves to take meals certain hours, and frequently without any appetite; ie true and healthy appetite alone can ascertain the antity of aliment proper for the individual. If, in it state, we no longer relish a common dish, it may regarded a certain criterion of its disagreeing with e digestive organs. If, after dinner, we feel ourves as cheerful as before it, we may be assured we ve taken a proper meal: for, if the proper measure exceeded, torpor and relaxation will be the necesy consequences; the faculty of digestion will be paired, and a variety of complaints gradually inced.

Treatment.—In all cases of indigestion, we must our to find out whether the stomach be primarily sympathetically disturbed; and if the head be also ected, whether it be from increased or diminished ality. Morbid irritation of the brain, and of course the stomach, is often occasioned by an increased termination of blood to the head, from general ple-

he human body; and were these animals not killed at a certain iod, their flesh would be unfit to eat, and their bodies become ema-ed. Several well-authenticated cases of spontaneous combustion the human body, in consequence of the long immoderate use of rituous liquors, have been published in England and on the conti-t, by gentlemen of unquestionable veracity. The Transactions of Royal Society of London present a remarkable instance of this cies of combustion, attested by a great number of eye-witnesses, in parish of St. Clement, Ipswich. This extraordinary occurrence ame the subject of many learned discussions; the particulars of ich, with several other similar cases, are to be found in Dr. Trots late Essay on Drunkenness.

thora, or plenitude of blood-vessels; and this state of the circulation is not unfrequently attendant on general debility and emaciation. In this case the pulse is full and oppressed, the patient is inflamed and the mind confused by wine, and he is often giddy and disposed to dose after dinner. When indigestion is accompanied with this state of system, the loss of blood by cupping, and half an ounce of Epsom salt, dissolved in a quarter of a pint of cheese-whey, or water, in a morning, are the best remedies.

When the system is not over-loaded with blood, the treatment should commence with an emetic; after which, the following mixture may be serviceable:

Take of tincture of rhubarb, one ounce; tincture of columbo, six drachms; cinnamon-water, six ounces; syrup of sugar, one drachm. Mix. A table-spoonful to be taken thrice a day.

Two drachms of Epsom salt may likewise be taken every third or fourth morning, to increase the peristaltic motion of the intestines, and remove redundant slime. If acidity prevail in the stomach, two drachms of prepared natron may be added to the mixture recommended above.

In debilitated, gouty, or languid constitutions, the volatile tincture of cascarilla, with powder of Jamaica ginger, will prove an excellent remedy.

Quassia-root has been much and deservedly recommended in cases of indigestion. A wine-glassful of the infusion (made by pouring a pint of boiling water on two drachms of the shavings, and let it stand two hours,) may be taken twice or thrice a day.

The extract of camomile was a very favourite stomachic medicine with the late Dr. Cam, of Hereford; it may be taken in the following manner:

Take of extract of camomile, one drachm; purified natron, one drachm; tincture of ginger, two drachms; mint-water, six ounces. Mix. Three table-spoonfuls to be taken three times a day.

If pills be preferred by the patient, it may be taken with equal advantage in the following form:

Take of extract of camomile, one drachm; dried

tron, half ditto; powdered rhubarb, one scruple; of caraway-seeds, ten drops; syrup of ginger, ficient to form twenty-four pills. Two to be taken o or three times a day.

When the countenance is pale, and the extremities d, and particularly when the legs swell in the ening, a scruple of the precipitate of iron may be ded to the above form.

The compound tincture of ginger and camomile-wers is also a very excellent remedy for indigestion, en attended with much flatulence. If there be a iciency of the biliary secretion, which may be known the pale or dark appearance of the feces, a grain prepared calomel should also be taken every other ht, for about ten days or a fortnight. A decoction sarsaparilla root may accompany the use of small ses of calomel, in such cases, or tincture of ginger l camomile.

Till the stomach is restored to a healthy state by ese means, such a diet should be adopted as will ncide with the remedies, and not aggravate the mptoms. Green vegetables should be taken very aringly. The diet should consist principally of ani-l food, which, when well masticated, will digest tter than vegetables alone:* and even if spirituous uors were the chief agents in producing the disease, y should not *now* be abandoned entirely; for as ne and malt-liquor will soon become acid, spirits will ove beneficial, by checking fermentation, and keep-up the action of the stomach; a little brandy, di-ed with water, may therefore be allowed, if used aringly. If the patient be subject to gout, ginger y likewise be taken in the quantity directed for ut. The article taken for breakfast should contain

* The flesh of young animals is most easy of digestion; but the lity of meat in this respect is much affected by the mode of cook-it. By roasting, the fibres are rendered hard of digestion; and boiling, the juice and most nourishing qualities are extracted. The t method of cooking meat appears to be by steam, which renders fibres more tender, and at the same time does not rob it of its nou-ment, which resides in its juices or gluten.

an aromatic quality, to promote its digestion; for this purpose, the best that can be adopted is the nut of the sassafras, which not only possesses a grateful aromatic property, but is also very nourishing. For the want of a gentle aromatic, the usual breakfast of tea or coffee disorders the stomach, by relaxing it, and by producing acidity and flatulence. To this treatment, exercise will prove a very powerful auxiliary.

In very obstinate cases of indigestion, attended with cramp in the stomach, a frequent disposition to looseness and flatulence, the following mixture will prove an efficacious remedy, particularly in elderly people:

Take of extract of rhatany-root, two drachms; aromatic tincture of ditto, one ounce; prepared natron, two drachms; pure water, ten ounces. Mix. Two or three table-spoonfuls to be taken three times a day.

The stomach receiving its power of action from the brain, the application of cold water to the head, as directed for head-ache, by allaying morbid irritability of the brain, has been very beneficial in cases of indigestion, particularly when attended with pains in the head, and general nervous debility.

When the stomach is evidently disturbed by over-distention of the blood-vessels of the head, it will not only be necessary to keep the bowels open, but to observe a low diet, and to increase the circulation of the blood in the extremities, by the use of flannel socks, flesh-brush, &c, and if attended with pain in the head, stupor, or giddiness, a blister should be applied to the nape of the neck. Such patients will receive great benefit by confining their beverage to pure water.

Prevention.—It must appear evident, from the foregoing observations on the causes of this disease, that the most effectual prevention will be found in properly exercising the body; in proportioning the quantity of food to the degree of exercise;* and re-

* It is not an easy matter to ascertain the exact quantity of food proper for every age, sex, and constitution; the best rule is to avoid extremes. Three meals in a day are as many as nature requires, and certainly as much as the stomach can *properly* digest;—dinner ought to form the chief of these. Hearty suppers, particularly of meat, in

iquishing the use of spirituous or vinous liquors: it if sufficient bodily exertion cannot be taken, and artificial appetite must be produced by stimulating e digestive organs, such stimulants should be em-oyed as will not injure the coats of the stomach, or sturb the brain. Of this class, ginger, Cayenne pep-r, and well-seasoned pickles, are the most innocent d effectual. Of wines, genuine claret is probably e most salutary beverage, in the quantity of a glass two, after meals; but this wine is too often mixed th English brandy, which entirely destroys its salu-ious property.

Such as are in the habit of drinking a quantity of irit, or spirituous wines, will receive great relief by king distilled water at meals,* instead of wine or alt-liquors, which will in a great measure obviate e injurious effects of an over-quantity of spirit or ne. I have known cases of indigestion from the use spirits, attended with symptoms of a diseased pylo-s, cured by the patient's drinking, at meal-times, thing but distilled water, and gradually diminishing e quantity of wine, till it was reduced from eight sses to one in a day.

Of the Itch.

Symptoms.—This disease first appears in small mples with watery heads, which itch violently when

ich some people indulge themselves previously to their retiring to t, are highly prejudicial to health: hence the old adage,

"Great suppers a very great evil we call;
"That your sleep may be sound, let supper be small."

While we are eating, water is certainly the best beverage. The tom of drinking fermented liquors, and particularly wine, during ner, is a very pernicious one. The idea, that they assist digestion, alse; for those who are acquainted with chemistry, know that food ardened and rendered less digestible by them: and the stimulus ich wine gives to the stomach is not necessary, excepting to those o have exhausted the excitability of that organ by the excessive use strong liquors. If food want diluting, water is the best diluent, l will prevent the rising, as it is called, of strong food, more effec-lly than wine or spirits.

the part is warmed by the heat of the fire or bed. By friction the pimples are inflamed, and assume a peculiar redness, which distinguishes the disease. It usually appears about the wrist, fingers, arms, and thighs, but seldom on the head.

CAUSE.—The pimples are evidently produced by an animalcule, which is described to be of a whitish colour, and formed like a tortoise, having six feet, and a sharp head, with two sharp horns on its points; others, who have not taken the trouble of making so minute an examination, assert, that it is an eruption from an ichorous serum, which by irritating the small ramifications of the nerves under the cuticle, occasions the itching and heat. If this latter opinion were correct, it could not be communicated by the clothes.

CURE.—Sulphur is a certain poison for these animalcules, and more safe and expeditious than any other application. An ointment of it may be made thus:

Take of flowers of sulphur, four ounces; hog's-lard, eight ounces; oil of lavender, one drachm. By the oil of lavender, the unpleasant smell of this remedy is disguised. The part affected should be well anointed with it every night, till the eruption entirely disappear.

The internal use of sulphur will, in all cases, assist its external application. The linen should be often changed, and not worn again before it be well washed and bleached, so as to destroy the animalcules that may have lodged in it.

The decoction of white hellebore is by some preferred to sulphur, on account of being inodorous. It may be made in the following manner:

Take of white hellebore-root, bruised, four ounces; boil it in a quart of water to a pint and a half, then strain, and add lavender-water, four ounces; with which the parts affected should be washed two or three times a day.

Mercurial applications are preferred by many practitioners; but they are neither so safe nor certain as sulphur, and may, under certain circumstances, prove

ry hurtful to the constitution. The advertised re-edies for the itch are chiefly composed of arsenic, ercury, and lead.

Of Jaundice.

Symptoms.—This disease generally comes on with tlessness, loss of appetite, drowsiness, depression of irits, and sometimes costiveness; which are soon suc-eded by a yellow appearance of the whites of the es, the nails of the fingers, and at length the whole rface of the body. The urine is highly tinged with le, and deposits a yellow sediment, which imparts colour to linen; the stools are of a light clay-colour; violent pain frequently extends from the right side the pit of the stomach, which is considerably aggra-ted after meals; some are much disposed to sleep, hers to watchfulness.

Causes.—In this disease the bile not passing through e biliary duct into the intestines, it is taken up by e absorbent vessels of the liver, and conveyed to the ass of blood, from whence it is separated by the kid-ys, and passes off in the urine. The causes of ob-uction in the natural channel are various, *viz.* biliary ncretions, in which case it is attended with pa-xysms of acute pain in the regions of the liver and omach: another cause is, compression of the biliary ct by schirrhous tumors, and sometimes the impreg-ted womb. It is often occasioned by spasmodic ntraction of the biliary duct, in which case it is nerally brought on by mental depression or uneasi-ss.

Treatment.—The cure of this disease depends on e removal of the impediment to the free passage of e bile through the biliary duct; but before the ac-mplishment of this object is attempted, it is often cessary to palliate the most distressing symptoms. us, if the patient be affected with a violent paroxysm pain, an attempt should be made to procure a sus-

pension or mitigation, by the exhibition of twenty drops of liquid laudanum in a little peppermint-water, which should be repeated according to the violence of the pain.

When the obstruction is produced by spasms or biliary concretions, and the patient is of a plethoric habit, the loss of blood from the arm, by relaxing the parts, will afford considerable relief.

When it arises from concretions lodged in the biliary duct, the indication of cure is, to produce a dissolution of the concretion, or to facilitate its passage to the intestines, by relaxing and agitating means. The solution of biliary concretions is extremely difficult, even out of the body, and of course must be much more so when lodged in the gall-bladder or duct. Dr. John Camplin asserts, that he has found ether to answer this purpose, and I have certainly witnessed its good effects in several cases;* but whether from a solvent power, as the doctor supposes, or as an anti-spasmodic, I cannot take upon me to determine.

For the purpose of relaxing the biliary duct, laudanum, the loss of blood, the warm bath, and nauseating doses of tartarised antimony-wine, are the most powerful remedies; and the agitation of the parts, which will afterwards accelerate its expulsion into the intestines, is best effected by an emetic, and by active purgatives of calomel and jalap, and exercise.

When the disease is produced by the *pressure* of a schirrhous tumor, the remedies to be depended on are hemlock combined with mercury, in the following proportion; and the use of distilled water, as recommended in the cure of cancer:

Take of powdered hemlock, one drachm; prepared calomel, two scruples; conserve of heps, a sufficient quantity to form a mass. To be divided into forty pills; one to be taken twice a day, with three tablespoonfuls of the following mixture.

Take of infusion of columbo, six ounces; prepared soda, two drachms; compound tincture of cardamom seeds, half an ounce. Mix.

* Dr. Reece.

If the bowels should be confined during the use of se medicines, an ounce of aloetic wine may be led to the mixture.

The diet should be regulated according to the state the constitution: in cases of organic disease, the ength should be supported; but if it be produced by ary concretions, the diet should be low, particularly he patient be of a plethoric or inflammatory habit. vegetables are apt to generate a considerable gree of flatulence and acidity in the stomach, the ient should be allowed broth, and a little animal d in substance.

Infants, soon after their birth, are very subject to acks of jaundice, from viscid mucus obstructing the l-duct; for the removal of which, a gentle emetic of cacuan-powder (about three or four grains) is gene- y sufficient; if it should not yield to this remedy, a tle dose of calomel and rhubarb may be given twice eek, and the solution of salt of wormwood two or ee times a day.

People subject to this disease from gall-stones, uld be very particular in avoiding indigestion, and consequent formation of acidity, which, from the lysis of the stone, is probably the primary cause.

Of King's-Evil, or Scrophula.

So called from *scropha*, a pig, because it has been ob- ved in swine. It is named the king's-evil, because ward the Confessor, and other succeeding kings, h of England and France, pretended to cure it by touch.

In the beginning of this work the office of the ab- bent system in the animal machine has been noticed. subjects of a delicate structure, this important part the constitution is often extremely tender, which nstitutes what is termed the scrophulous habit. The sorbent vessels not acting in unison with the secern- extremities of the arteries in different parts of the

body, indolent tumors are formed. This state of the absorbent system is often transmitted from parents to their children.

The different opinions that have been broached respecting scrophula, as produced by a specific poison, or connected with the venereal disease, small-pox, &c. are too ridiculous and absurd to notice: and the idea of its being a disease of debility is not less erroneous; for its victims are equally the robust as the weak, and it appears in the sanguine as well as the phlegmatic habit.

Children of scrophulous habits have an unusually florid complexion, and a fulness of the face. The most common symptoms, besides the tumors, are a swelled upper-lip, soreness in it and about the nose and cheeks; the tumors sometimes break, and heal with difficulty. The eyes are inflamed, and a sharp humour running from them corrodes the cheeks; the lids are swollen, red, and in a morning cannot easily be opened, and the globes of the eyes are rather protuberant.

The derangement generally occurs in the glands of the neck, in the ligaments of the joints, and even in the substance of the bones. The glands of the mesentery are also often tumefied, and accumulation takes place in the substance of the lungs, forming what are termed tubercles.

Treatment.—The treatment of scrophulous affections must depend not only on the state of the constitution, but the structure of the parts, and their importance in the animal economy in which they occur. When the lungs are the seat of the disorder, it produces the disease termed Pulmonary Consumption; when it takes place in the ligament of the joint, it is denominated White Swelling, the treatment of which is given under that head.

Numerous specifics for scrophula have been recommended, but the idea of correcting the system by a specific remedy is ridiculous. When the derangement takes place in a part of little importance in the body, we must attend to the general health; in doing which

must keep in view the state of the cerebral system; the absorbent system, which is entirely in error in s disease, derives its power of action from the brain; l whatever tends to increase the irritability of the rvous system will aggravate scrophula. For the im-ovement of the general health, the directions given der the head of Indigestion, should be adopted in ophula.

To invigorate and strengthen the absorbent system, d bathing and the sea-air have been found very neficial; but when the complaint is situated in the est, the former cannot be employed with safety.

A little mercury is also very beneficial, by rousing action of the absorbent vessels; but if it be given quantity, or continued for some time, so as to occa-n irritation in the system, or what is termed the rcurial fever, it will be productive of fresh mischief. ues have been found very beneficial in cases of scro-ula; but this is chiefly, if not solely, in subjects of thoric habits. For the ulcers which follow suppu-ion, in this disease, frequent ablution with lime-ter, and the application of lint moistened with it, more beneficial than greasy compositions.

If any kind of ointment should be necessary, the fol-wing will generally be proper:

Take of yellow basilicon, seven drachms; red pre-itate, one drachm. Mix. The sore may be dressed th this twice a day; and if there be much fungus, mmonly called proud-flesh,) and it does not digest ll, a larger proportion of the precipitate may be ded.

Washing scrophulous tumors with salt water, by igorating the absorbent vessels, is generally of great vice; as is also gentle friction with the hand.

In subjects of a delicate absorbent system, or what termed the scrophulous habit, slight accidents, espe-lly sprains, are often productive of considerable mis-ief. They should therefore be attended to in the st instance.

Solutions of corrosive sublimate and arsenic have en industriously advertised as specifics for scrophula.

Such medicines, judiciously administered, may prove beneficial; but in the hands of ignorance, they must, from their poisonous qualities, be often productive of serious mischief; for if the dose be exceeded only a few drops, the patient's life may be destroyed; instances of which, it is said, have certainly occurred: they should therefore never be used without medical skill.

The custom of plying children in the scrophula with strong purgative medicines, is extremely pernicious. People imagine it proceeds from humours, which must be purged off, without considering that these purgatives increase the debility, and aggravate the disease. It has been found, that keeping the body gently open for some time, especially with sea-water, has a good effect; but this should only be given in gross habits, and in such quantity as to procure one, or at most two, stools every day.

Bathing in salt-water has a very good effect, especially in the warm season. I have often known a course of bathing in salt-water, and drinking it in such quantities as to keep the body gently open, cure a scrophula, after many other medicines had been tried in vain. When salt-water cannot be obtained, the patient may be bathed in fresh water, and his body kept open by small quantities of salt and water, or some other mild purgative.

Next to cold bathing and drinking the salt-water, we would recommend the Peruvian bark. The cold bath may be used in summer, and the bark in winter. To an adult, half a drachm of the bark in powder may be given in a glass of red wine two or three times a day. Children, and such as cannot take it in substance, may use the decoction, made in the following manner:

Boil an ounce of Peruvian bark, and a drachm of Winter's bark, both grossly powdered, in a quart of water to a pint; towards the end, half an ounce of sliced liquorice root, and a handful of raisins, may be added, which will render the decoction less disagreeable, and make it take up more of the bark. The liquor must be strained, and two, three, or four, table-

poonfuls according to the age of the patient, given hree times a day. Or, the compound tincture of ark may be used in its stead in small doses.

Of Leprosy.

The true leprosy very rarely occurs in this country. To this head, however, is referred a great variety of cutaneous affections, which, for the most part, yield to the remedies recommended for cutaneous derangement.—*See Eruptions of the Skin.*

Of Lumbago.

The lumbago is a fixed pain in the small of the back, particularly upon stirring, or endeavouring to raise the body: without nausea, and other symptoms peculiar to the stone in the kidney. It may belong either to the gout or rheumatism, but most commonly the latter.

In cases of pain in the loins, medical advice should always be taken; for should inflammation be here mistaken for rheumatism, and, as such, treated by *stimulating* medicines, the consequence would be a formation of matter, constituting the disease called *Lumbar Abscess*, which generally terminates in the death of the patient. Advertised medicines for lumbago have certainly been productive of much mischief in this respect.

When the case is doubtful, the warm-bath, a blister over the part, and five grains of Dr. James's powder, made into a pill with conserve of heps, and repeated every four or five hours till a perspiration is produced, may be safely employed. Lumbago requires the same general remedies and topical applications as recommended for rheumatism.

Of Melancholy.

MELANCHOLY is a mild species of insanity, so nearly allied to hypochondriacism, as to require a similar mode of treatment. Indeed, it is very difficult in *all* cases to distinguish the hypochondriac affection from melancholy, the same temperament being common to both. However, the distinction may be *generally* ascertained: the former is commonly attended with symptoms of indigestion; and though there be at the same time an anxious gloomy fear arising from the feeling of these symptoms, yet, while this fear is only a mistaken judgment, with respect to the state of the person's own *health*, and the danger to be from thence apprehended, the disease may still be considered hypochondriac affection, and distinct from melancholy; but when an *anxious fear* and *despondency* arise from a mistaken judgment, with respect to *other* circumstances than those of health, and more especially when the person is at the same time *without any symptoms of indigestion*, it constitutes the disease strictly named melancholy. When the characters of the temperament are strongly marked, and more particularly when the false imagination turns upon other subjects than that of health, or when, though relative to the person's own body, it is of a *groundless* and *absurd* kind, then, notwithstanding the appearance of some symptoms of indigestion, the case is still to be considered as that of melancholy rather than the hypochondriac affection: these distinctions, however, bear no reference to any difference of treatment.

The distinguishing character of this disorder, is an attachment of the mind to *one* object, concerning which the reason is defective, and perfect with regard to other subjects. In its treatment, as in hypochondriacism, there is great scope for the management of the mind and passions. The chief point seems to be, to divert the attention of the mind from its *accustomed* object, and to introduce *variety* of matter upon which it may exercise itself. This, however, requires the greatest caution and delicacy in the execution. Most melan-

olic persons are jealous of being esteemed as such, d have generally a great opinion of their own wisdom d sagacity, and of course are apt to hold very cheap e amusements of social intercourse and company, they are inclined to think themselves neglected and spised by the world.

Van Swieten recommends travelling as best calcuted for the cure of such patients, by introducing a adual yet interesting variety of objects and subjects attention, which are the more pleasing as they have t the appearance of being *intentional.* The purpose travelling also (to those whose situation and circumances admit of it) may be varied according to the sposition of the patient. This esteemed author retes, from his own knowledge, that several literary rsons who were thus affected, would by no means persuaded to go to any mineral waters for relief, hich they thought would confirm the opinion of the orld concerning their disorder, but were easily inced to travel for the purpose of viewing several raries and resorts of learned persons; and the vaeties of attention thereby produced, had the best fects in working a cure. He also recommends an citement of such passions as are of an *opposite* nare to those that have prevailed during the course of e disorder. Thus the timid are to be supported with ch arguments and discourse as may tend to rouse to urage and resolution; the gloomy are to be cheered; d the violent and passionate to be restrained by fear. ven shame may be sometimes used successfully in eventing the consequences at least of melancholy.

It is generally found conducive to the cure not to ntradict *too peremptorily* the ideas and opinions of e patient. Opposition, if *too direct*, serves only to itate the temper, and to confirm erroneous opinions. ch a degree of compliance as expresses only a *morate* assent often succeeds. When the imagination not inflamed by opposition, it sometimes corrects elf. When the senses are *violently* depraved, a more ntire acquiescence in the opinion of the melancholy rson may be necessary. The introduction of inno-

cent amusements, and such employments as consist of moderate exercise of the faculties, are likewise proper. Cœlius Aurelianus recommends, that *literary* people should be amused with *philosophical* questions, that the *farmer* should be entertained with discourses on *agriculture*, and the *sailor* with *naval* affairs. Music, for those who have a taste and ear for it, may be a powerful remedy, and as such is mentioned by Celsus and other writers.

The observations made on the salutary influence of the true Christian religion on the mind, under the treatment of *Hypochondriasis*, equally apply to melancholy.

With the view of strengthening the brain, and allaying nervous irritation, the head may be washed with, or immersed in, cold water every morning. If the general health of the body be disturbed, the treatment recommended for indigestion will also be necessary.

Of the Menses.

Periodical discharges of blood, from about the age of fourteen to from forty-five to fifty. In warm climates they appear at about eight or nine years of age, in temperate ones at thirteen or fourteen, and in the arctic regions not till nineteen or twenty. The quantity discharged is from four to ten ounces; and the discharge continues from two to five or six days. In some relaxed constitutions, there is occasionally not more than a week's interval; and in general the more lax the constitution the larger is the discharge, and the longer its continuance. The indolent, the sanguine, and the luxurious, have generally a large periodical evacuation.

In consequence of its not appearing at a proper time of life, of irregularity after it has taken place, and too great a discharge, termed flooding, and at the period of its cessation, many derangements in the system occur, all of which shall be considered under this head.

The interruption of the menstrual discharge may be nsidered of two kinds; the one when it does not gin to flow at the period of life in which it usually pears, which is termed *chlorosis*, or green-sickness: d the other, when, after it has repeatedly taken place r some time, it does, from other causes than concepon, cease to return at the usual periods; which shall considered under the head of *Suppression of the lenses.* And first.

OF THE CHLOROSIS, OR GREEN-SICKNESS.

The period of menstruation is so different in different nstitutions, that no time can be *precisely* assigned as oper to the sex in general. In this country it usually ppears about the age of fifteen, but in many more rly, and in others not till eighteen, without any disder being thereby occasioned. It is therefore only be considered as a *disease*, when some *disorder* arises the body, which may be imputed to its retention, d which is known from experience to be removed the flowing of the menses. These disorders are, a uggishness, and frequent sense of lassitude and deity, and the various symptoms of indigestion, and metimes a preternatural appetite, as the longing for alk, lime, charcoal, &c. The face loses its vivid llour, and assumes a yellowish hue; the skin pale d flaccid; and the feet, and sometimes great part of e body, affected with an œdematous swelling. The eathing is hurried by any quick or laborious motion the body, and sometimes occasions palpitation and nting. A head-ache often occurs, but more certainly ins in the back, loins, and haunches.

Causes.—It is supposed to arise from want of due rce in the action of the arteries of the womb, or some eternatural resistance in their extremities.

Treatment.—The strength of the system should be stored by exercise, and, in the beginning of the dise, by cold-bathing,* and the use of stomachics,

* If there be a preternatural determination of blood to the head or ngs, or the patient be affected with cough, cold-bathing is improper.

combined with such medicines as are known to produce a determination to the womb, and remove glandular obstructions, as the following pills:

Take of socotrine aloes, two drachms; gum myrrh, one drachm; saffron, in straw, half a drachm; mucilage of arabic, enough to make into a mass for pills, No. 45. Two pills to be taken at bed-time, once or twice a week. The dose should be increased, diminished, or repeated, so as to keep the body gently open. Or three table-spoonfuls of the following mixture may be taken three times a day:

Take of gum-myrrh, prepared natron, of each one drachm; salt of steel, one scruple; mint-water, eight ounces. Mix.

Powdered madder-root has been much recommended as a remedy for green-sickness, by Professor Home, of Edinburgh, who directs half a drachm of the fresh powder to be taken three or four times a day; after two days, the learned doctor observes, two scruples may be given; and if this dose should not prove effectual in two or three days, it may be increased to a drachm four or five times a day. It appears, that out of nineteen cases, the doctor cured fourteen by the use of this root. Dr. Cullen, however, states, that in all the trials he made with it, it failed; and in the practice of others it has been attended with no better effect. From the bulk of the dose necessary to be taken, I have never met with a patient who could persevere properly in its use. The extract, which contains a full dose of the virtues of the root in a small bulk, is exempt from this objection; it may be taken combined with steel, as in the following mixture:

Take of extract of madder, two drachms; muriated tincture of steel, forty drops; bitter tincture, two drachms; mint-water, eight ounces. Mix. Three table-spoonfuls to be taken three times a day.

The tincture of black hellebore-root, in the dose of a tea-spoonful twice a day (in a wine-glassful of water) is much extolled as a remedy for this disorder by Dr. Mead; it has not, however, succeeded so well in the

ractice of others. Dr. Cullen asserts, that in many ials he never found it to answer. In fact, there is no edicine that possesses *specific* powers in producing enstruation; and therefore the disease is only to be ired by a combination of means, the success of which rincipally depends on improving the general health f the body.

Electricity has been employed as a local stimulus those cases, and a gentle shock passed through the gion of the womb has in a number of instances suc- eeded.

Frequent and habitual exercise of the body is of the ighest importance. It is absolutely necessary to sur- ount the antipathy which such patients have to an tive life. The inclination to indolence is doubtless symptom of the disease, therefore circumstances are be proposed to them which will induce them *wil- ngly* to take exercise. Innocent recreations, such s walking, and rural occupations, will answer this urpose.

If the patient suffer much pain in the head, or be ffected with giddiness in consequence of a determina- on of blood to the brain, the feet should be put into arm water every night, and eight or ten ounces of lood extracted from a vein in the foot or arm. If the ulse be full, or if the patient complain of difficulty of reathing, and a sense of tightness across the chest, ne *timely* loss of blood from the arm, and a blister to ne chest, may prevent consumption of the lungs.

These remedies are adapted to the cure of the *reten- on* of the menses, termed chlorosis, or green-sickness. ee *Page* 365.

OF THE SUPPRESSION OF THE MENSES.

Every interruption of the menses is not to be con- dered as a case of *suppression*, for the discharge is not lways immediately established in its regular course; nd therefore if any interruption happen in the space f the first or second year, it may be considered as a ase of retention, termed *chlorosis*, or green-sickness,

if attended with the symptoms peculiar to that state. The cases, therefore, of suppression, are such as occur after the flux has *for some time been established* in its *regular* course, and in which the interruption cannot be referred to the causes of the retention termed chlorosis, but must be imputed to debility, or diminished irritation, or restriction of the vessels of the womb. There are, however, some cases, which depend on *general* weakness of the system; but in such cases the suppression always appears as symptomatic of other affections, on the removal of which its recurrence depends.

A suppression of this periodical discharge seldom continues long without being attended with various symptoms of disorders in different parts of the body, arising from the blood being determined to other parts instead of the womb, and often with such force as to rupture a blood-vessel; hence, bleeding from the nose, lungs, stomach, &c. is often produced: besides which, the patient is commonly affected with hysteric fits and indigestion.

Treatment.—The treatment of suppression of the menses must be regulated by the state of the body. When the system is in a plethoric state, the cause generally arises from a restriction of the vessels of the womb, in which case the loss of blood, and the warm-bath, are the most efficacious remedies.

In all cases, costiveness should be avoided, by the use of such opening medicines as will at the same time produce a determination of blood to the neighbourhood of the womb, as the following:

Take of the colocynth-pill, with aloes, one drachm; compound pill of galbanum, half a drachm; prepared calomel, fifteen grains. To be well blended, and divided into thirty pills; two or three of which are to be taken occasionally.

In case of violent head-ache, much cough, or symptoms of plethora, the loss of blood, according to the strength of the patient, will likewise be proper.

The Peruvian bark, steel, and other astringents, usually employed in such cases, to strengthen the sys-

n, by *increasing* the *constriction* of the vessels of the mb, often do much harm. The feet should be put ery night in warm water for ten minutes, and kept rm during the day-time by the use of thick flannel cks. The diet must be regulated according to the mptoms of plethora, or debility: if the patient do t suffer from local plenitude, as head-ache, oppression of breath, &c. it should be of the nutritious kind, t not stimulating; wine, particularly port, and irits, should be avoided. Exercise is of greater nsequence than medicine, as it will obviate fulness, muse the mind, and promote digestion. If, on the ntrary, it be attended with symptoms of local or neral fulness, a low diet should be strictly observed, d all stimulants, as wine, brandy, &c. avoided.

If the system be in a debilitated state, with pallid untenance, the treatment recommended for the retion of the menses should be adopted.

The advertised nostrums for obstruction of menses e very numerous; but no single remedy, it is clear, n be applicable to *all* cases of suppression.

OF FLOODING.

The flow of the menses is considered immoderate hen it recurs more frequently,* when it continues nger, or when, during the ordinary continuance†, it more abundant than is usual with the same person other times. It is not, however, every *inequality* that to be considered a disease, but only those deviations at are *excessive* in degree, which are *permanent*, and duce a *manifest state of debility*.

When a large flow of the menses has been *preceded* head-ache, giddiness, or difficulty of breathing, and s been ushered in by a *cold shivering*, and is attended ith much pain in the back and loins, with a frequent

* The usual period is from twenty-seven to thirty days.

† The time of its continuance varies in different constitutions. It dom continues longer than six days, or shorter than two. In gene-, females of a lax and delicate constitution have a more copious and ntinued discharge than the robust.

pulse, heat, and thirst, it may then be considered preternaturally large; and in consequence of a continuance or recurrence, the face becomes pale, the pulse weak, an unusual debility is felt on exercise, the breathing hurried by much motion, and the back becomes pained in an erect posture; when the extremities become frequently cold, and when, in the evening, the feet are affected with œdematous swelling, we may conclude the flow of the menses to be *immoderate*, and to have induced a dangerous degree of weakness. General nervousness, with affections of the stomach, frequent faintings, and a weakness of mind, liable to strong emotions from slight causes, especially when suddenly presented, are also attendant symptoms.

Causes.—It is produced by a preternatural determination of blood to the womb, or a plethoric state of the body, from high living, strong liquors, over exertion, (particularly dancing,) violent passions of the mind, application of cold to the feet, frequent abortions or child-bearing, and whatever will induce great laxity, as living much in warm chambers, and especially drinking largely of warm enervating liquors, such as tea and coffee.

When excessive menstruation occurs after the age of forty, and particularly when it is preceded or succeeded by pains in the region of the womb, some organic mischief may be suspected, which may require the assistance of an experienced surgeon. A prolonged menstruation is also often the consequence of such disease.

Treatment.—When a copious menstruation has come on, it should be moderated as much as possible by abstaining from all exercise either at the coming on or during the continuance of the menstruation: by avoiding an erect posture and external heat, as warm chambers and soft beds; by using a light and cool diet (such as former habits will allow;) by the use of mild laxatives, as castor oil, and lenitive electuary; the external and internal use of astringents, to constringe the vessels of the womb, as the application of cloths sprinkled with vinegar over the region of the

mb, and three spoonfuls of the following mixture
:en every four hours:

Take of red-rose leaves, dried, half an ounce; infuse
a pint of boiling water, till cold; then strain, and
l diluted vitriolic acid, sixty drops; tincture of rha-
ıy root, one ounce.

If the discharge, notwithstanding the use of these
nedies, should continue immoderate, the following
ion should be thrown up the vagina by means of
emale syringe:

Take of pomegranate rind, bruised, three drachms;
il in a pint and quarter of water, to a pint, then
ain, and add alum, a drachm and half. To be used
d.*

Ipecacuan powder, in the small dose of two grains,
as to excite nausea, yet not vomiting, has been
ınd to answer in many cases. It should be admi-
tered with caution, lest, by exciting vomiting, it
ıuld do harm. Spontaneous vomiting is however
en attended, in such case, with the most decided
nefit in checking the discharge; and I have known
exhibition of an emetic dose of ipecacuan powder
ıtch, as it were, the patient from the jaws of death.

When organic disease of the womb exists, the ex-
ıition of a little mercury in the manner recommended
scrophula, will be necessary during the intervals
menstruation.

In cases of flooding, attendant on miscarriage, or
ng-in women, the patient should be kept as quiet as
ssible, till medical assistance can be procured. If it
very considerable, a cloth wetted with cold vinegar
ıy be applied to the loins and bowels till a medical
rson arrives.

When flooding occurs during labour, the life of the
man may be considered in such imminent danger

* Astringent medicines should not be employed unless the strength
he patient is much reduced, and the discharge evidently of a pas-
nature. The employment of astringent injections, before the sys-
has been properly unloaded and the fever abated, by suddenly
cking the discharge, may be productive of inflammation of the brain
lungs, or inflammatory fever.

that not a moment should be lost in obtaining the assistance of an experienced *man-midwife.*

Prevention.—When flooding arises from laxity of the system or the vessels of the womb, or when the discharge has induced much debility, it will be proper, during the *intervals* of menstruation, to employ cold bathing and some strengthening medicines, as the following:

Take of extract of rhatany-root, two drachms; vitriolated magnesia, two drachms; dissolve them in six ounces of water; and add aromatic tincture of rhatany, six drachms. Three table-spoonfuls to be taken three times a day.

OF THE CESSATION OF THE MENSES.

The most critical period of a woman's life is, perhaps, when the menstrual discharge is about to cease, which generally happens from the 40th to the 50th year. If this period be passed over without producing disease, the general health may be considered established; but sometimes the entire cessation is succeeded by a determination of blood to the head, producing violent head-ache, apoplexy, &c. or to the lungs or bowels, occasioning organic mischief. At this period a woman should be very particular in avoiding a plethoric state of the system, by moderate exercise, abstemious diet, and by keeping the bowels open by an active purgative, as the compound colocynth pill:—two drachms of it may be made into twenty-four pills; two or three of which may be taken in a morning, occasionally.

In cases of violent head-ache or giddiness, the loss of blood from the arm will be necessary.

Of the Mumps.

This disease, from an atmospheric cause, is often epidemic; by some practitioners it is supposed to be infectious.

Symptoms.—Like other inflammatory affections, it nerally comes on with the common symptoms of er, such as cold shiverings, sickness, vomiting, in in the head, &c. which are soon succeeded by elling of the parotid glands, producing a consider- le tumor at the corner of the lower jaw; often in e gland only, but more frequently in both; but metimes finishing its course in one, and afterwards tacking the other. It increases till the fourth day, d from that period it declines, and in a few days ore goes off entirely.

Treatment.—This disease commonly runs its urse, without either disturbing the general health or oducing derangement in the structure of the gland; that a low diet, and the occasional use of Rochelle Epsom salt, is all that is requisite. If, however, e swelling be considerable, and the fever run high, ith pain in the head, the application of leeches to the rt, (and sometimes the loss of blood from the arm, the patient be of a full habit), a blister to the nape of e neck, and the saline mixture, will be necessary.

Of Nervous Diseases.

The term *nervous* has been long a very fashionable ne, but within these few years it has become more shionable to attribute complaints to the bile; and ypochondriacs, and people of vacant minds, who can ink of nothing else but the state of their health, in- ead of being *nervous*, now complain of being bilious. f the two terms, that of nervous is the most consist- nt; for, in one sense, every disease that assails the uman frame may be termed nervous, inasmuch as in l, the nervous system is more or less affected.

The class of nervous diseases comprehends those eviations from health in which the nervous system is rimarily or principally affected; and as the body de- ves its power of action from the brain by means of the erves, this class is, of course, very numerous. The

nerves are branches from the brain, which ramify all over the body. This complex organ possesses three different powers. The primary moving power of the body residing in it, it is the seat of sensation—the receptacle of our ideas—the scene of all the intellectual operations—and the connecting medium between the body and that immaterial principle denominated the soul. Diseases being influenced by the state of the nervous system, knowledge of the anatomy of the mind, and the effects of its different emotions on the general health, is of greater importance to the physician than even that of the body. Nothing tends to derange this important system more than the abuse of spirituous liquors. In consequence of being over-stimulated, the nerves receive false impressions, and communicate them to the sensorium; hence external objects, which would otherwise give pleasurable ideas, often excite disgust, and, the mind of such a patient is truly wretched as long as he is not under the influence of the exhilarating cordial; by the frequent use of which, the soul itself receives impressions that are incompatible with its reasoning power. Spirituous liquors may for a time exhilarate the mind, but it is an invariable law of the human body, that the spirits are never artificially raised without being afterwards *more* than proportionably depressed; and thus, after the effects of the spirit or wine are gone off, the person uniformly finds himself languid and enervated to a very great degree. The ideas, in the absence of the stimulus, have all a gloomy cast, and every sensation is unpleasant: it leaves a void, which nothing can supply but a repetition of the cordial draught, which is no sooner swallowed than another is desired; thus, by degrees, the structure of the brain itself, the very origin or root of the nerves, is injured; and every species of delirium, often amounting to insanity, is the certain consequence.*

* The nervous cordials of many quacks are an ardent spirit, so powerful that a table-spoonful is equal to a glass of the strongest brandy. These stimulants, by exhausting the excitability, soon blast the vigour, and sap the foundation, of the strongest constitution. It

Wine, and ardent spirits of every kind, ought only be resorted to on *extraordinary* occasions, and in a *dicinal* point of view. Persons in good health have need of them; they are better and stronger without em: for in proportion as they exhilarate, so do they erwards depress; and the habitual use of them, even what is generally considered moderation, by too pidly exhausting the excitability of the system, sel- m fails to shorten the natural duration of life.

After we have passed the meridian of life, a little ne may be serviceable; but the exact period when should be employed must depend on the natural engtli of the constitution, and the occupation of the rson. No man in health can require wine till he s arrived to forty: he may then begin with one or o glasses in the day; at fifty, he may add one more; d at sixty, he may go to the length of three or four sses in a day; but not to exceed the quantity of , even though he should live to a hundred. Good ne, in old age, keeps up the different functions of e body, on which account it has been aptly called, e "*milk of old age.*"*

Such as have impaired their general health and ner- us system, by frequent intoxication, or the too free

only those whose nervous system has been impaired by the abuse of rituous liquors, that would, however, receive even a temporary re- from such medicines; and we may safely conclude that those who e attested their efficacy were addicted to dram-drinking.

* People are so differently affected by wine, that it is difficult to down any general rule for regulating the quantity. Those who not easily affected by it, may take more than those whose nervous tem is irritable. Hence we are to judge by the *effects* on the sys- , and not the quantity; for if only half a glass disturb the brain, inflame the system, it will prove more injurious to the constitution n if a bottle had been taken without such effects: again, people more susceptible of its influence at one time than another, accord- to the state of the nervous system, and in some degree even the nosphere. It is a remarkable circumstance, that people who have n in the habit of drinking wine or spirits almost every evening till ir heads be affected, die apparently of formidable disease of the in; and yet, on dissection, the brain exhibits no appearance of or- ic disease. The case, I apprehend, is, that frequent intoxication dually impairs the electrical powers of the brain, and hence destroys without producing apparent organic mischief.

use of spirituous or vinous liquors, will receive every benefit medicine can afford, by attending to the directions given for the treatment and prevention of indigestion.

Of the Nettle-Rash.

This eruption is so named from its resemblance to that produced by the stinging of the nettle. It is a very mild disease, and seldom requires the use of medicine. When it is attended with fever, small doses of Epsom salt, or an aperient mixture, with twenty drops of antimonial wine, at bed-time, and a low diet, will be sufficient. If it be of a chronic nature, twelve drops of the diluted vitriolic acid, may be taken three times a day, in a wine-glassful of cold camomile-tea The aperient sulphureous water of several springs, is also a valuable remedy.

Of Night-Mare.

This complaint always happens during sleep: the patient feels a sense of weight; a dread of suffocation; an oppression, as if some body were falling upon him, with an intent to deprive him of life, not suffering him to cry out; hence it is common for those patients to start up, and exclaim with an inarticulate voice: they move with difficulty; but, on the first motion, the distressing feelings vanish.

This disorder has been supposed to proceed from a stagnation of blood in the brain and lungs; but it is a nervous affection, chiefly from indigestion: and those whose nerves are weak, who lead sedentary lives, feed heartily, and sup late, are the most subject to it. Wind is a frequent cause; deep thought, anxiety, or any oppression of mind, will produce it.

Treatment.—If the patient be of a plethoric habit, the loss of blood will be proper. A spare diet, due

xercise during the day, a light supper, keeping the eet warm by wearing flannel socks, and obviating ostiveness, will in general be sufficient.

If the patient be much depressed, a tea-spoonful of he volatile tincture of valerian, taken twice a day in a vine-glassful of cold camomile-tea, affords the most fficacious remedy.

When it arises from indigestion, ground Jamaica ginger, taken at night in a little water, will prevent its ecurrence. *See Indigestion.*

Of Pain in the Ear, or Ear-ache.

ACUTE pain in the ear, to which children are chiefly subject, most frequently arises from inflammation. It s accompanied by a sense of throbbing pain, and noise n the ear; sometimes deafness, and general symptoms of fever. In every affection of this kind, dispersion of the inflammation is to be attempted, first by dropping a little laudanum into the passage, and by the application of a blister behind the ear, which should be kept open till the symptoms are considerably abated.

In all cases of a slight nature, this treatment will be found to succeed; but in more violent affections, suppuration is often unavoidable: the tendency to which s marked by an increase of pain in the organ, and by a *more general* affection of the head. The only treatment then left is to endeavour to promote suppuration by fomentation, or by injecting warm water into the ear, by means of a syringe. A poultice has also been advised, but the situation renders it an inconvenient form.

When matter once appears, it is to be removed by injecting warm water into the ear. Should the discharge be too profuse, or long continued, mild astringent injections will be necessary, consisting of five grains of acetated ceruse, or vitriolated zinc, in eight ounces of rose-water.

Sometimes the disease extends to the bone, in which

case, before a cure can be effected, exfoliation will take place.

As deafness is sometimes the consequence of this complaint, the advice of an experienced surgeon should be taken, when the complaint is either violent or obstinate.

Of Palpitation of the Heart.

This affection arises from morbid irritability of the heart. The beating is frequently so violent as to be heard at a considerable distance, and sometimes the action of the heart may be perceived on the outside of the clothes.

Treatment.—The treatment of this disease, like most others, must depend on the state of the system; for the morbid irritation may be the effect of fulness, or of debility and relaxation. If the system be in a *plethoric* state, the loss of blood, and an opening medicine, will be necessary. In case of general debility, twenty drops of ether, with a tea-spoonful of tincture of castor, in a small wine-glassful of valerian-tea, two or three times a day, will prove serviceable. When it arises from *mal-formation* or *disease* of the heart, or of the large vessels, relief may be obtained by avoiding plethora, much bodily exertion, full meals, and excess of every kind, with the use of such medicines as are calculated to allay nervous irritability, as camphor, valerian, laudanum, and ether. When the action of the heart is very violent, from ten to twenty drops of the tincture of fox-glove may be taken two or three times a day, in three table-spoonfuls of the saline mixture, and a blister applied to the left side: if its violence should not abate after the use of these remedies for two or three days, one or two grains of hemlock powder may likewise be taken every six or eight hours.

This affection is sometimes symptomatic of water in the pericardium, which chiefly occurs in aged people;

hen small doses of calomel, about one or two grains, ken every night for a fortnight, or till the mouth is ndered tender by it, and twenty drops of muriated ncture of steel, in a glass of water, three times a day, ith the jolting of a carriage once a day,* will prove neficial.

This disease is sometimes the consequence of the mmunication between the auricles of the heart, hich exists during the fœtal state, remaining unosed; such a case will only admit of the palliative eans of avoiding fulness, violent exercise, and emons of the mind.

As the heart receives its power of action from the ain, washing the head with cold water every morning, allaying morbid irritation of that organ, has been ry serviceable in cases of palpitation.

Of Palsy.

This is a disease of the nerves; sometimes of the ole body, but more frequently of one side only; ely the lower extremities from the loins; and sometes it is confined to a muscle or nerve, as of the dder and anus, suffering the urine and stools to ss off involuntarily. Sometimes the muscles of the gue are affected, occasioning stammering and loss speech; sometimes of the optic nerve, producing disease called *gutta serena*, or imperfect vision; d sometimes the nerve of the ear, producing deafness. bad cases, where one half of the body is paralysed, speech is much impeded, or totally lost, and consions often take place on the sound side. The scles of the affected side of the face being relaxed, e those on the opposite side an appearance of being

* The exercise on the box of a carriage without springs is prefer- to that of the inside of a carriage: but the nature of the disease uld be well ascertained before such a remedy be employed, for if rise from aneurism of the aorta, or any organic affection of the t, such exercise will prove very hurtful.

drawn up or contracted; and the patient, having the power only of putting those in action on the *well* side, appears, on speaking, to elevate the corner of the mouth, so as to form a kind of grin or laughter, which is only owing to the muscles of the *opposite* side being in a relaxed state. The paralytic part often gradually decays, shrivels up, feels much colder than any other part of the body, and with a weaker action of the arteries.

CAUSES.—This disease is a diminished irritation, in consequence of compression, poison, or the division of a nerve. Of the compressing causes, distention of blood-vessels of the brain, effusion of blood or serum within the head, or tumors, are the principal; and of the poison, lead. It is sometimes, but very rarely, the consequence of extreme debility.

TREATMENT.—When it is produced by compression of the brain, from distention or effusion, the paralytic numbness is only symptomatic of apoplexy, and as such should be treated. If, however, the palsy continue *after* the compression of the brain is evidently removed, it should be treated as local palsy, by external stimulants, as friction with flannels, or mustard flower, and blisters. The organs of digestion should be invigorated by such stimulating medicines as will not, at the same time, increase the action of the heart and arteries; for this purpose a small tea-spoonful of powdered Jamaica ginger, may be taken twice or thrice a day, or a pill of two grains of Cayenne pepper. The peristaltic motion of the bowels should be kept up by taking five or ten grains of the aromatic pill twice a day, or in such quantity as to produce *one* stool every twenty-four hours. A seton in the nape of the neck, particularly if the patient be affected with giddiness, will afford considerable relief, by preventing plethora. The food should be nutritious, but taken in moderate quantities; and, for the purpose of keeping the body warm, flannel should be worn next the skin. If partial palsy be occasioned by the compression of a tumor, its removal, if practicable, is first necessary, in which the health of the part may be recovered by local sti-

ulants and friction. When the lower extremities are aralytic, a seton should be applied over the os sacrum; r, in case of distortion or disease in the back, on the de of the part affected. As the latter causes are of scrophulous nature, the treatment recommended for crophula should be employed. When palsy is conned to a muscle or a limb, the topical application of lectric sparks, and a blister, will prove serviceable. When it is produced by poison, the part should be timulated by electric sparks, mustard poultices, and he following mixture be taken:

Take of horse-radish root, sliced, and mustard-seed, ruised, of each one ounce; pour on these a pint of oiling water, and let the infusion stand in a warm lace for twelve hours, then strain, and add compound pirit of lavender, one ounce. A wine-glassful may be ken three or four times a day.

Sumach, or *rhus*, has lately been recommended by Dr. John Alderson as a remedy for palsy. The doctor, in a treatise on its virtues, relates several cases of alsy, in which it proved successful. A grain of the owder is directed to be taken in any convenient vehie twice a day, and to be gradually increased to three four grains. From the account given of it by Dr. lderson, it appears to have effected more in the cure palsy than has ever been ascribed to any other redy, and such as justly entitles it to the attention of e *medical profession*.*

We often meet with cases arising from morbid irribility of the brain and nervous system, in consequence of mental or corporeal exertion, to which the ame of palsy is generally given. The species is enerally aggravated by stimulating or tonic medicines. he use of Epsom salt, to obviate costiveness, the spirit nitre, and the application of cold water to the head very morning by means of the shower-bath, have been und most beneficial. As the mind is also much

* This is a powerful and an excellent medicine, but should be given utiously, under the direction of a medical person. It is best to begin th less than a grain, and slowly to increase the dose, as the patient n bear it.

affected, the directions for its management, given under the head of *Hypochondriacism*, are also necessary.

When the cause of palsy is not evident, the treatment recommended for indigestion should be adopted.

Of Pectoral Angina.

This disease passed unnoticed, by practitioners, till the late Dr. Heberden published a description of it about forty years ago; and although it is by no means rare, it is little understood to the present day. The patient is seized whilst walking, and more particularly if he walks soon after eating, with a painful sensation in his breast, extending to his arms; the moment he stands still, this uneasiness vanishes: but after the complaint has continued some months, it does not cease so suddenly after resting; it will now come on even while the person is in bed. In some inveterate cases it has been brought on by very trivial accidents, such as coughing, going to stool, by swallowing, speaking, or any slight disturbance of mind. Sometimes, though rarely, it attacks while the patient stands or sits still. In some persons it is worst in winter, in others, during the summer season. When a fit approaches whilst the patient is walking, its duration is short: but if it comes on in the night, it will continue an hour or more. Sometimes, though seldom, there are several days before any remission is manifest; and during the time, the danger is imminent.

Persons of fifty years of age and upwards, of gouty habits, with short necks, and who are inclined to be corpulent, are the most subject to this disease. It seldom attacks those who are younger. The fit commences with an acute pain beneath the lower part of the breast-bone, attended with a sense of constriction. The pain inclines rather to the left side, and often extends to the left arm, accompanied with great anxiety, difficulty of breathing, and a sense of suffocation. The late Dr. Fothergill observes, that *a sharp constric-*

ve pain across the chest is the characteristic symptom f this disease. No age is totally exempt from it. It tacks men more frequently than women, and parti-larly the sedentary.

CAUSES.—The cause is most probably a spasm or nvulsion, as appears from its sudden attack and eedy departure, the long intervals of ease, the relief forded by wine and spirituous cordials, its generally aring the motion of a horse or carriage well, and its ming on in the night after the first sleep. In young ople, this disorder probably arises from nervous irri-bility of the heart, or internal muscles of the chest; ut in elderly people, this state is frequently accom-anied with some *organic* disease of the heart, or the ronary arteries.

TREATMENT.—Our object in the treatment of this sease, is to allay the morbid irritability of the ner-us system. If the sanguiferous system be over-aded, or what is termed in a plethoric state, it will e necessary to reduce it by taking eight or ten ounces blood from a vein in the arm; and, if there be con-derable irritation in the chest, a blister should be plied over the breast-bone. The bowels should be pt open by the occasional use of Epsom salt; after hich two of the following pills may be taken two or ree times a day:

Take flowers of zinc, two scruples; extract of hops, e drachm; extract of henbane, one scruple; oil of int, twenty drops. Mix; and divide into thirty lls.

If the paroxysm be violent, about thirty drops of her, and ten of laudanum, may also be taken imme-ately on its attack. The diet should be light, and e from every thing of a stimulating nature, as ices, wine, spirit, and fermented liquors. The pa-nt should be very careful not to over-load the omach, nor to use any kind of exercise immediately ter meals, and to guard against any emotion of the ind. As corpulence is a predisposing cause of the sease, the patient should endeavour to avoid it, by ercise, a spare diet, and the use of laxative medi-

cines; an issue in the arm will likewise prove very beneficial in this respect. Dr. Darwin and Dr. Macbride have published several cases of this disease, that were effectually cured by issues alone.

If the patient be emaciated, his countenance pallid, and particularly if the legs swell in the evening, thirty drops of the ethereal tincture of steel, in three tablespoonfuls of the infusion of rhatany-root, or columbo, will afford great relief. This case being attended with such great debility of the system, it is scarcely necessary to observe, that bleeding, or an issue, here is *improper.*

Of Piles.

This disease consists of one or more tumors, situated sometimes externally, and sometimes within the verge of the anus, for the most part attended with a discharge of blood. When there is no discharge, it is termed *blind piles;* and when the discharge is only serum, *white piles.* This disease, at first, is generally local; but by frequent occurrence, the constitution becomes so habituated to the discharge, as to render it in some degree constitutional; in which case it is preceded by head-ache, stupor, giddiness, and other symptoms of fever, with a sense of tightness or fulness, heat and itching, and a sense of dragging down about the anus; or otherwise symptoms of indigestion, as flatulency, acidity in the stomach, &c. often attended with spasms. Sometimes the inflammation of one tumor runs so high as to terminate in the formation of matter, and thus produce the sinuous ulcer termed fistula.

Causes.—This disease may be occasioned by whatever interrupts the free return of blood from the rectum; such as a collection of hard feces, or an impregnated or enlarged womb. It is sometimes produced by irritation; hence aloes, or the pills advertised under the title of the Scotch Pills, are very apt to excite piles by irritating the rectum. The piles are

ometimes the effect of relaxation and debility, and robably not unfrequently arise from an inflammatory ction in the rectum, and a diminished secretion of ucus from its inner membrane.

TREATMENT.—When *costiveness* is the cause, the following electuary will be proper:

Take of flowers of sulphur, six drachms; electuary f senna, two ounces; nitre, in powder, half a drachm; yrup of marshmallows, enough to make an electuary. A tea-spoonful to be taken twice a day. Or,

The aperient sulphureous waters will remove it, and uiet the parts.—If, after the due operation of either f these medicines, the disease should continue, the arts should be anointed with the following ointment:

Take of spermaceti ointment, one ounce; Goulard's xtract of lead, fifteen drops; tincture of opium, one rachm. Mix well together, and rub a little on the arts affected.

In case of much inflammation, general bleeding, nd the application of leeches to the part, will be necessary to prevent the formation of fistulous ulcers; nd the patient should be kept in an horizontal position, and strictly observe a low diet. If irritation be he cause, the same mode of treatment should be pursued, with the occasional use of laudanum, in the uantity of eight or ten drops, twice or thrice a day. And, if it be the consequence of relaxation, the following mixture may be found useful:

Take of extract of rhatany-root, three drachms; dissolve it in twelve ounces of water; and add aromatic incture of rhatany-root, one ounce; spirit of sal-volatile, two drachms. Two or three table-spoonfuls to e taken every three or four hours. While using this nedicine, a decoction of oak-bark (made by boiling alf an ounce of the bark in a pint of water, for about en minutes,) should be frequently applied to the part. *Astringent* and *cold* applications should, however, be mployed with great caution, and not without the dvice of a surgeon, as apoplexy has been known to ollow the sudden dispersion of piles.

If the discharge of blood in either case be *con-*

siderable, the patient should be kept quiet, and in a reclining position. He should make use of a *cold* diet, and avoid stimulants and external heat.

When the constitution has become habituated to the disease, and the parts have suffered much from its frequent occurrence, stimulants, as pepper, and ginger, taken with the aliment, often afford considerable relief. A stimulating electuary, known by the name of Dr. Ward's Paste, has been much puffed off, and even recommended by regular practitioners. The following is an exact copy of the doctor's receipt for making the paste, as published by John Page, Esq. to whom he bequeathed his book of recipes:

Take of elecampane powder, two ounces; sweet fennel seed powder, three ounces; black pepper powder, one ounce; purified honey, and brown sugar, of each two ounces. The size of a nutmeg to be taken two or three times a day.

Ginger powder, and black pepper, generally have a very salutary effect in piles, although attended with great irritation and even a degree of inflammation, which one would suppose, from their stimulating qualities, they would be more likely to increase. Such medicines probably afford relief, by producing an increased secretion of mucus from the inner membrane of the great gut, and by invigorating the hæmorrhoidal vessels.

In *elderly* people piles are very frequently the consequence of some organic disease of the great gut, in which case the early advice of an experienced surgeon should be taken; as by topical management, and the use of alterative medicines in the first stage, much serious mischief may be prevented. Indeed, no disease can be more distressing than a schirrous contraction of the rectum.

An erysipelatous inflammation at the anus is very often mistaken for piles, by people who are unacquainted with the disease. This complaint is attended with a most troublesome degree of itching, and often an ichorous discharge. It soon yields to the following ointment:

Take of citron-ointment, spermaceti ditto, of each ual parts. To be well mixed together in a glass-ortar, and rubbed over the affected parts two or three nes a day.

The solution of Epsom salt, one ounce in a quart of re soft water, should be taken moderately.

The parts are likewise subject to excrescences or rts, which are often mistaken for piles; these may removed by ligature, caustic, or the knife. The cision of them by the knife is preferable, on account being more expeditious, less painful, and attended th no danger. The daily ablution of the parts with ld water will afterwards destroy the disposition of e skin to their formation.

The recurrence of piles will be best prevented by viating costiveness, by proper management of diet, ld bathing, and general bleeding in full habits.

Of Rheumatism.

THIS disease commonly occurs in autumn and ring, and seldom in winter or summer, unless the cissitudes of heat and cold be sudden and frequent. a plethoric habit, or when attended with fever, it called *acute rheumatism*; and when without fever, *ronic rheumatism*.

OF ACUTE RHEUMATISM.

SYMPTOMS.—This species commences with the ual symptoms of fever, accompanied with pain, ellings, and redness of the joints, generally of the ees, hips, ankles, shoulders, elbows, and wrists, ile the smaller joints of the toes and fingers are ldom affected. The *fever* rarely continues violent ore than *fourteen* days, although sometimes the *pain* eps shifting from one joint to another for some eeks. The pain, and frequently the fever, is much creased in an evening, and the former, during night,

is often acute. As the pains become fixed, the fever generally abates.

Causes.—It is produced by exposure to cold, when the body is unusually warm, or by its *partial* application, or from a *continuance* of cold, as wet clothes, &c.

Treatment.—The first object in the cure of this disease is, to abate the fever; for as long as the febrile symptoms run high, all topical applications will prove unavailing. For this purpose, particularly if the patient be young and of a plethoric habit, bleeding will be proper; and afterwards drink freely of the following decoction:

Take two ounces of whole barley, cleanse and wash it well in hot water, throwing away this water afterwards. Then boil the barley in five pints of water till the barley bursts and opens. Towards the end of the boiling, throw in one drachm of nitre: strain it through a linen cloth, and add one ounce and a half of honey, and one ounce of vinegar.

If the patient be very costive, a dose of salts, in a little whey, may be given before the above decoction is used, and then take a tea-cupful of it frequently.

If the pain be very severe, the following draught at bed-time may be taken:

Take of tartarised antimony wine, thirty drops; liquid laudanum, fifteen drops; camphorated julep, one ounce. Mix.

Half a pint of *weak* white wine whey should be taken about an hour after this draught, to promote its sudorific operation; and the following mixture, during the day-time, in order to keep up its effects:

Take of Mindererus's spirit, three ounces; ipecacuanha powder, ten grains; essence of peppermint, fifteen drops; pure water, five ounces. Mix. Three table-spoonfuls to be taken every four or five hours.

The draught may be repeated every night till the symptoms are considerably abated.

If the inflammation run high, the application of six or eight leeches to the part will be necessary. When the fever is abated, and the pains become fixed, the parts should be well rubbed with volatile liniment, or

podeldoc. In case the pain and inflammation continue obstinate, the use of the warm bath once in venty-four hours, and blisters to the parts affected, ill prove powerful auxiliaries to these remedies.

Opium, in the dose of one grain, three times a day, often very beneficial in acute rheumatism; but the ss of blood, and the use of aperient medicines, should e premised. Exposure to cold should be avoided, nd a low diet observed. Common whey, taken warm, ffords an excellent medicinal beverage.

Electricity is a very popular remedy for chronic neumatic complaints; but for *this species*, by increasg the fever, it is uniformly *hurtful*. It should, therere, never be employed till the complaint becomes of *chronic nature*.

OF CHRONIC RHEUMATISM.

Symptoms.—When the febrile symptoms, together ith the swelling and redness of the joints attendant n the acute rheumatism have entirely abated, and the ain sill continues to affect certain joints with stiffness r uneasiness of motion, on change of weather, the sease is termed *chronic rheumatism*, which often conmues a length of time. The joints most surrounded y muscles, and the parts that suffer much by bodily xertion, as the hip and the loins, are commonly the ats of this complaint. When it affects the hip-joint, is named *Sciatica*; and when situated in the loins, *umbago*.

Treatment.—The indications of cure are exactly pposite to those of the *acute* or *inflammatory* species; e latter being attended with an *increased* vitality of e system, and the chronic with *diminished* vitality, or bility. The energy of the system should be roused the following mixture:

Take of volatile tincture of guaiacum, half an ounce; ney, half an ounce; camphorated julep, six ounces: b the tincture with the honey, in a glass mortar, and ld the julep by degrees. Two table-spoonfuls to be ken three or four times a day.

The parts affected should be stimulated by electric

sparks, or volatile liniment, by friction, and the application of flannel.

If these means prove ineffectual, the application of a blister, or the following stimulating plaister, will be necessary:

Take of Burgundy pitch plaister, one ounce; gum euphorbium, in fine powder, one drachm. To be well mixed, and spread on leather.

The *hot*-bath may likewise be employed with advantage.

If the system be in a very debilitated state, or if the stomach do not perform its office, a drachm of the essential salt of bark, or extract of rhatany root, may be added to the above mixture: a little of the farina of Jamaica ginger may likewise be taken in the common drink. The diet should be generous, and the common beverage the spirit of juniper (commonly called gin), diluted with water.

If the disease be attended with emaciation of the body, and particularly with an exacerbation of pain in the evening or during night, two of the following pills may be taken twice a day, with a quarter of a pint of the compound decoction of sarsaparilla:

Take of prepared calomel, twelve grains; gum guaiacum, one drachm; extract of poppies, half a drachm; golden sulphur of antimony, one scruple. Mix, and divide into thirty pills.

The compound decoction of sarsaparilla should be taken to the extent of a pint a day; it may be made as follows:

Take of the root of sarsaparilla, sliced and bruised, six ounces; bark of the root of sassafras, shavings of guaiacum-wood, and liquorice-root, of each one ounce; mezereon, three drachms; distilled water, ten pints: macerate for six hours; then boil it down to five pints; adding, towards the end of the boiling, the mezereon and sassafras; and strain the liquor for use.

Marsh-trefoil, commonly called buck-bean or three-fold, used for a considerable time, in large quantity, answers a valuable purpose in chronic rheumatism. A quart-pot should be filled with the herb, either fresh

or dried, at night, and boiling water be poured on it to the brim: let it stand till morning. The whole of this, poured off clear, should be taken, a gill at a time, in the course of the day. But to reap permanent benefit from this infusion, it should be taken for weeks, or even months together.

PREVENTION.—Cold bathing, and the use of flannel next the skin, are the most effectual means of preventing the recurrence both of chronic and acute rheumatism.

DISTINCTION.—Rheumatism may be distinguished from gout by its not being *preceded* by pain in the stomach, symptoms of indigestion, and cramp of the extremities; by its being seated in the *larger* joints, while the gout affects principally the *smaller* ones; occurring at an earlier period of life; its *not* being *hereditary;* and in general it can be traced to some exciting cause, particularly the action of cold. It is exceedingly difficult to distinguish rheumatic pains from those produced by deep-seated inflammation, and from such mistakes the most serious consequences often arise, particularly when situated in the loins or hip-joint; the stimulating applications, as electricity, &c. employed for the cure of rheumatism, increasing the inflammation, and occasioning extensive suppuration, which generally terminates in the death of the patient. Such mistakes have happened even in regular practice; and through the imprudent use of quack medicines, such terminations are very frequent. Lumbar abscess, a very formidable disease, begins with pain in the loins, resembling lumbago; the only chance the patient has of recovery, in such case, is the prevention of the formation of matter; in all *doubtful* cases, therefore, the application of a blister, cupping, and the use of the following diaphoretic medicine, should be employed instead of the *stimulating* plan recommended for chronic rheumatism:

Take of camphorated julep five ounces; Mindererus's spirit, three ounces; sweet spirit of nitre, three drachms. Mix. Three table-spoonfuls to be taken every four or five hours.

Of Rickets.

This disease is peculiar to infancy, seldom appearing after the third year, or before the ninth month, but generally in the intermediate time. The first symptoms are an enlargement of the head, face, and belly; while the other parts of the body diminish in bulk, except the joints of the hands, arms, knees, and feet, which become irregularly tumefied; the bones lose their solidity, so as to give way to the weight of the body; hence those which are employed for that purpose; as the legs, thighs, and back-bone, become crooked and distorted; and the child, of course, walks with more and more difficulty, and sometimes it entirely loses the use of its feet. The veins of the neck, and those that surround the large joints, are generally much distended, while those of other parts of the body appear in a diminished or contracted state; the countenance is lively, the cheeks full, and often florid, and the faculties of the mind sometimes impaired, but more frequently it possesses a premature acuteness of understanding. As the disease advances, the sides of the chest become flattened, the breast-bone elevated, often in a point, and the ends of the ribs knotty; the teeth generally come forward at a late period, and soon turn black and decay, or become loose and fall out; the pulse is quick and feeble; the appetite sometimes good, but the digestion evidently bad, being frequently attended with flatulency, and a vomiting of an acid matter.

This disease seldom proves fatal, unless fever and consumption of the lungs supervene: but after the fourth or sixth year, the child generally gains strength, and the bones of the legs, though very crooked, often become straight as it grows up, while the distortion or the curvature of the back-bone frequently increases.

Causes.—Scrophula is a disease arising from tender structure of the lymphatic system; while rickets arises from debility or delicate structure of another set of vessels engaged in the mutation or support of the body,

med the secerning extremities of arteries, whose ice is to deposit nutriment; in consequence of which, bones and muscles are not properly nourished, the mer not being equal to sustain the weight of the dy, and the latter becoming flaccid. From the fre- ency of this disease in marshy countries, a moist nosphere has been noticed by medical writers as a *disposing* cause. Some attribute it to bad nursing, use of acescent food, and whatever may tend to bilitate the body: others, with less probability, have ributed it to scrophula, or venereal taint in the rents. In those who have died of the disease, the senteric glands, the liver and lungs, have been found arged, and the bones nearly destitute of the earthy tter which gives them firmness and shape.

Dr. Bobba, of Italy, some time since presented to Medical Society at Paris, some remarks on the use of rickets. The bones owing their solidity to osphate of lime, he ascribes the cause of rickets to want of this substance; but whether the phosphate lime be entirely wanting in the system, or the ves- s destined for its deposition in the bones be too ak to perform their office, the doctor does not take on himself to determine.

TREATMENT.—The first step towards the cure of this ease, is to procure a proper digestion of the food; which purpose it will be necessary to clear the first sages by an emetic of ipecacuanha powder, and to pty the intestinal canal by a gentle dose of calomel l rhubarb; after which a dessert-spoonful of the owing mixture may be given three times a day:

Take of extract of rhatany-root, one drachm; dis- ve in lime-water, six ounces; then add, tincture of damom-seeds, half an ounce.

If the feces should continue pale after this medicine been taken a week, a grain of calomel should be en every or every other night, in a little currant- y or sugar; the bowels should be relieved twice, at least once, a day. The alterative dose of calo- l should be continued every other night for a week, ill the stools become of a proper yellow appearance.

After the disordered state of the digestive organs is corrected, cold-bathing may be employed, for the purpose of strengthening the nutrient vessels of the body.

If, notwithstanding these remedies, an acidity continue to prevail in the stomach, which is frequently the case, the emetic of ipecacuanha powder should be repeated, and the patient should, besides the mixture, take prepared natron; and when the symptoms of indigestion have subsided, the mixture need not be taken more than once a day, (about an hour before dinner.) The limbs, and even bowels, should be well rubbed every night and morning with a flesh-brush, flannel, or a warm hand.

If the bones of the lower extremities be much curved, they should be supported by instruments, so made as to take off the weight of the body, by sustaining the pelvis, and at the same time to produce a slight pressure on the *distorted* parts of the bones. If the child be a female, great care should be taken that the instrument does not compress the bones of the pelvis. Many a case of distorted pelvis has no doubt been produced by the pressure of improper instruments on these bones. Some practitioners discountenance the use of instruments in the curvature of the bones of children; but as they cannot produce mischief when properly made, I think it would be more prudent to employ them, when the bones of the legs and thighs evidently give way. For mere enlargement of the knees, they are certainly unnecessary.

The want of solidity in the bones arising from a deficiency of the phosphate of lime, Dr. Bobba recommends this preparation to be administered internally, in order to supply it to the blood; but the disease is not the consequence of a deficiency of the phosphate of lime in the system, but the debility of the vessels whose office it is to deposit it in the substance of the bones.

The muriated tincture of steel, in the dose of five drops, twice a day, in a little water, is a very valuable remedy in the advanced stages of rickets.

The Peruvian bark is much recommended as

engthening medicine in cases of rickets. It is not efficacious as the mixture of rhatany and lime-water iced above. The use of issues in cases of rickets is ch to be doubted. The discharge cannot be bene-al, but, by increasing the debility of the frame, is y likely to prove injurious; they are, at any rate, ambiguous a remedy to employ in domestic me-ine.

Exercise being of great importance in the treatment rickets, the child should be well tossed in the arms an athletic nurse; and when she is tired, it should put to roll and stretch its limbs on a carpet, instead being rocked to sleep in a cradle, or put to sit and use itself with toys. A lively nurse that will do duty out of the sight of the parents as well as in it, l be of much greater service in establishing the lth of a rickety child than even the most powerful ic medicines. Nothing strengthens the digestive ans of children more than exercise; and if they e not their due share of it, indigestion and other eases will be the certain consequences.*

The diet of ricketty children should consist of a portionate combination of animal and vegetable d, such as broth, chicken, veal, and bread or rice dding; and the animal and vegetable jellies, as those arrow-root, sago, and hartshorn-shavings; and the erage chiefly pure water. A tea-cupful of good sh milk, with a table-spoonful of lime-water, given o or three times a day, is very beneficial in this nplaint.

Malt-liquor, wines of all sorts, vinegar, tea, and ipe fruit, should be particularly avoided.

If the child be affected with difficulty of breathing cough, flannel should be worn next the skin.

* It is worthy of notice, that in manufacturing towns, where mo-rs do not allow themselves time to exercise their children, ricketty plaints are most prevalent.

Of Rupture.

THIS complaint is a protrusion of some part of the contents of the belly, forming a soft compressible tumor, generally occurring in the groin.

CAUSES.—Whatever diminishes the cavity of the belly, by forcing the bowels out of their natural situation, will produce this disorder, such as excessive laughing, sneezing, an impregnated womb, and sudden and violent exertions. The fashion of wearing the waistband of the breeches high up, and tight round the waist, by pressing down the bowels, has been one cause of the unusual frequency of ruptures in England of late years.

TREATMENT.—All that can be done towards the cure of a rupture, is to replace the prolapsed parts into the cavity of the belly, and to prevent them from slipping out again: the surgeon has then done his part, and the rest is Nature's. For the purpose of retaining the bowels in their proper situation, after reduction, different bandages are employed, according to their seat. When the rupture is situated in the groin, or scrotum, an instrument termed a truss, has generally been applied; which, if not properly constructed, by producing an *unequal* pressure over the aperture through which the bowels protrude, will occasion much mischief, by suffering a small portion of the bowels to get between the pad and the bone, so as to be pinched or bruised. To obviate such a serious occurrence, several improvements have lately been made in the common truss, which, from the length and peculiar formation of the pad, and a regulating spring, an equal pressure is produced, and the descent of the bowels effectually prevented. In consequence of the elasticity of the *circular* spring, its use is attended with no inconvenience in walking or riding; and at the same time admitting of a rotatory motion, the pad is not displaced by any position of the body. This truss (termed Self-adjusting Truss) is the invention of Mr. Salmon, of No. 292, in the Strand, London. A principal advantage of this invention is, that it is not encumbered

ith understraps or bandages, which, during walking, e often productive of much irritation and inconvenience. The following instructions will explain the ode of application in different cases:

In all cases, the same truss is applicable to complaints in the right or left groin, and double complaints e secured by a double truss, or by a single truss applicable to either hip at pleasure.

The cases to the springs, the back and front cuions and their cases, are all made so as readily to ke on and off to be repaired or cleaned; and additional sets of these may be had at a small charge.

The size of the springs may be readily increased or creased, so as exactly to fit the body, which adjustent should be attended to, in order to secure a pleant and proper effect.

The force or pressure of the truss is such, that the ain-spring alone is sufficient for common complaints; t persons with bad ruptures sometimes require adtional springs, which are given with each truss. though this may happen in the first instance, it is in ch cases recommended to all persons, that as soon they properly keep up the bowels, the pressure ould be by degrees lessened.

DIRECTIONS FOR APPLYING NO. I.

This sort of truss is called *Opposite-sided*, because spring is (contrary to the common construction of sses) made to apply on the opposite hip to that on ich the complaint is situated; that is to say, if the mplaint be in the left groin, then the spring is ced on the right hip, and the front cushion brought oss the centre of the body, and placed with its lower ge just coming down to the bone of the pubes, which ne is situate just under the hole from whence the rupe protrudes; the back cushion should then be situd exactly on the centre of the back. If the comint be in the right groin, then the same truss will ally apply, but must be placed on the left hip, and tinue across the body to the seat of complaint.

This sort of truss has been tried on persons of all

ages, from one year and a half old, and is found the most certain and pleasant application.

DIRECTIONS FOR APPLYING NO. II.

This sort of truss is called *Same-sided*, because the spring is (according to the common construction) made to apply to the same side of the hip on which the complaint is situated.

This sort the patentees do not recommend, but for extraordinarily lusty persons, and particular cases. A slight strap to go round the waist is applied, to prevent misplacement by any accidental external force; but on no account should this strap be made tight.

In applying it, the front cushion should be placed just above the bone of the pubes, and the back cushion about the centre of the back; and whether for the right or left side, the same truss will answer.

DIRECTIONS FOR APPLYING NO. III.

This sort of truss is called *Double*, because it is two same-sided trusses united, and is for complaints on both sides. It is applied to the seats of the complaint as No, II. before described; and, when placed, the small strap in front is sometimes used to keep the cushions at a due distance from each other.

Umbilical trusses are also made on the same principle.

DIRECTIONS TO INCREASE OR DECREASE THE SIZE.

At each end is a screw; by taking out which, the cushions may be moved more or less distant. If the screw behind be at the greatest length, then the front screw should also be the same; so that each end correspond with the other.

DIRECTIONS TO INCREASE OR DECREASE THE FORCE.

By taking out the screw; that fixes the back cushion to the spring, the leather case of the spring may be taken off, and if more force be wanted, an additional spring must be laid on the back of the main-spring.

id the case put on again over both; or, if wanted, ree springs may be introduced.

If it be necessary to decrease the force, it is, of urse, done by taking out the additional springs.

The force of all the springs is stamped on the steel pounds' weight; and it should be remembered that e front cushion should be placed upon the end of e spring where the name is stamped; also, that e number of inches is marked on each truss; there- re, if a patient measure thirty-two inches in circum- rence, (just above the hips, not from the seat of the mplaint,) a truss so marked will fit. When the dy is in a *horizontal position* (as during bed-time,) e use of a truss is not necessary. The bowels should ewise be supported by means of drawers, with a ide waistband.

Costiveness and flatulence should be carefully arded against, by taking occasionally a table-spoon- l of the bitter tincture of rhubarb, and by avoiding uch vegetable food, and fermented liquors.

When the contents of the tumor cannot be re- rned, and much pain is felt in the part, or in the wels, attended with nausea, vomiting, restlessness, ver, and no discharge by stool, a strangulation of the otruded parts may be suspected, in which case sur- cal aid should be procured without delay, the life of e patient being endangered by approaching inflam- ation; and if the confined parts be not soon libe- ted, mortification and death will probably ensue.

Erysipelas. See Page 243.

Of Saint Vitus's Dance.

This disease attacks boys and girls indiscriminately; id those chiefly who are of a weak constitution, or hose natural good health and vigour have been im- ired by confinement, or by the use of scanty or im- oper nourishment. It appears most commonly from

the eighth to the fourteenth year; but sometimes later in life.*

The approaches of this disease are slow. A variable, and often a ravenous, appetite; loss of usual vivacity and playfulness; a swelling and hardness of the lower belly in most cases, in some a lank and soft belly; and, in general, a constipated state of the bowels, aggravated as the disease advances; and slight irregular involuntary motions of different muscles, particularly those of the face; precede the more violent convulsive motions, which now attract the attention of the friends of the patient.

These convulsive motions vary. The muscles of the extremities and of the face, those moving the lower jaw, the head, and the trunk of the body, are at different times, and in different instances, affected by it. In this state the patient does not walk steadily; his gait resembles a jumping or starting; he sometimes cannot walk, and seems palsied; nor can he perform the common and necessary motions with the affected arm.

The convulsive motion is more or less violent, and is constant, except during sleep, when in most instances it ceases altogether. Although different muscles are sometimes successively convulsed, yet, in general, the muscles affected in the early part of the disease remain so during the remaining course of it.

Articulation is now impeded, and the act of swallowing is performed with difficulty. The eye loses its lustre and intelligence; the countenance is pale, and expressive of vacancy and languor. These circumstances give the patient a foolish look; and where the complaint has continued for a considerable time, the mental faculties are much impaired. Females are most subject to this complaint.

Causes.—This disease arises from an increased irritability of the nervous system, which is often produced

* Dr. Rotheram observes, that he has seen this disease in a robust man of forty-two. This patient, after various ineffectual remedies had been used, was cured by strong electric shocks, directed through the whole body.

y some irritation of the stomach and intestines; such s worms, and sometimes by violent passions and erturbation of mind. In females, at the period of uberty, it probably arises from the same causes as ysterics.

TREATMENT.—The irritation of the cerebral system rain and nerves) being generally symptomatic of a isordered state of the digestive organs, or kept up by ritation of the stomach and intestines, it will be pro- er to commence the cure by a purgative dose of calo- el and rhubarb. For a child of ten years old,

Take calomel, two grains; rhubarb, twelve grains. Mix these into a bolus with a little syrup of sugar, or reserved currants, and give it first in the morning. The child should be kept from taking cold, and have little gruel or tea as soon as the bowels are affected.

N. B. The dose should be regulated according to he age and strength of the patient, and may be re- eated two or three days after.

If rhubarb be disagreeable to the patient, eight or en grains of compound colocynth pill, may be made nto two or three pills; and given in the morning asting.

After the due operation of the above, strengthening edicines, combined with those that are known to llay nervous irritability, should be persevered in; uch as the following mixture:

Take of essential salt of bark, one drachm; dissolve in half a pint of water; then add, tincture of Russian astor, three drachms; tincture of valerian, six drachms. Mix. Two table-spoonfuls to be taken three times a ay. Or, the following pills:

Take of extract of rhatany-root, one drachm; flow- rs of zinc, and Russian castor, in fine powder, of each alf a drachm; compound galbanum pill, one drachm. Mix, and divide into forty pills; of which three may e taken twice a day.

If the complaint be attended with pain in the head, blister should be applied to the nape of the neck, nd the feet kept warm by the use of flannel socks; nd if there be evidently a morbid determination of

blood to the head, which is often the case when attended with a suppression of the menses, the extraction of blood from a vein in the arm will also be necessary.

When the symptoms are abated, cold-bathing every morning, if it do not alarm the mind, will prove of great advantage; and, with the use of the muriated tincture of steel, in the dose of ten or fifteen drops, in a glass of cold valerian and camomile tea, will probably complete the cure: if the patient have not sufficient resolution to go into the cold bath, cold water may be applied every morning to the head. The purgative medicine should be repeated two or three times a week, till nine or twelve doses have been taken; for if the nervous system be disturbed by the irritation of worms in the stomach or intestines, it will effectually dislodge them; and if the stomach and intestines are in fault, which in ninety-nine instances in a hundred is the case, the frequent exhibitions of such a purgative will probably remove the cause. If this treatment fail of affording relief, the cure should be attempted in the manner directed for epilepsy, of which this disease may be considered a more violent attack.

In many cases electricity has proved of great advantage; but in the majority it has aggravated the symptoms by irritating the brain, and increasing the determination of blood to it.

The electuary of tin, recommended for the tape-worm, has been successfully exhibited at the Hereford Infirmary in many cases of this disease.

Take of granulated tin, six ounces; carbonate of iron, one ounce; conserve of wormwood, three ounces. Mix. A large tea-spoonful to be taken every morning by a grown person, with a draught of lime-water. A child of ten years old, may take half the quantity.

The good effects of this remedy are attributed to its mechanical operation on the inner coats of the stomach and intestines, occasioning them to throw off redundant slime. With this view I have lately given the granulated tin in many diseases of children in which the stomach and bowels were disordered, with the

ost decided advantage. The diet should be regu-
ted according to the strength of the patient: if ple-
oric, a low diet should be observed, and wine and
imulants avoided; on the contrary, if the body be
ich debilitated, a nutritious diet should be employed;
it even in this case, wine and stimulants should be
lowed with great caution.

The acetated ceruse is also a very valuable remedy
r this disorder. given with a tonic medicine, in the
llowing form:—

Take of acetated ceruse, seven grains; extract of
atany-root two drachms; dissolve in eight ounces
water; and add, tincture of cardamom-seeds, six
achms. Two table-spoonfuls to be taken three
nes a day.

The acetated ceruse is a very powerful medicine,
d should in no case be employed internally with-
it the attendance of a practitioner in medicine.

Of Scald Head.

ALTHOUGH this is a local disease, it is evidently
mmunicated by a change of hats at schools, and by
e use of the same comb. The whole of the hairy
alp is subject to it, but, on close inspection, it will
pear more virulent at the roots of the hair. The
scharge is often so acrimonious as to cause swellings
the lymphatic glands of the neck. It is sometimes
y, and at others moist. Like the itch, it is probably
oduced by an animalcule.

TREATMENT.—On the *early* appearance of this dis-
se, it will only be necessary to cut the hair short in
e places affected, to remove the scabs, and rub a
tle of the following ointment well over the parts:

Take of the citrine ointment, three drachms; olive
l one drachm. Mix in a glass mortar.

When the disease has been neglected, and the scalp
uch affected, the shaving of the head will be re-
uisite; after which it should be well washed with a

strong solution of soap in water, till the scales and matter be entirely removed, when the following ointment should be *well* rubbed over the parts every night and morning, by means of a piece of soft leather:

Take of the citrine ointment, and pitch ointment, of each half an ounce. To be mixed in a glass mortar.

This ointment should be removed every morning, by first rubbing over the scalp some olive oil, and afterwards by washing it with soap and water, by means of a piece of flannel. If the disease appear to be more obstinate in one part than another, the hair of the part should be eradicated by degrees. During the use of this ointment, a cap made of a pig's bladder should be worn. When the virulence of the disease is abated, the cure may be completed with the citrine ointment and olive oil, as above directed; and even after it has entirely disappeared, it will be necessary to wash the scalp once or twice a day with a strong solution of soap, or a decoction of tobacco, till the hairs begin to grow on the parts, which may be considered a proof of the disease being destroyed. If fresh scales should continue to form, the application of ink will complete the cure.

When this disorder occurs in a scrophulous habit, it is generally extremely difficult to cure. In such cases the treatment recommended for scrophula will also be necessary. The internal use of mercury will not, however, be requisite, if the citrine ointment be well rubbed over the scalp.

Although this disease is confined to the scalp, I conceive it will, in all cases, be proper to attend to the general health, and particularly to the digestive organs of the patient; and to guard against acidity in the stomach, by the use of prepared natron.

Take of prepared natron, three drachms; pure water, one pint. Mix. A small wine-glassful of this may be given to a child, two or three times a day.

If the stomach be disordered, an emetic of ipecacuan powder, and a full dose of some opening medicine will be necessary; and afterwards thirty or forty drops of the tincture of columbo may be taken in the

ution of prepared natron, as above directed; but if e patient be of a full habit of body, a solution of osom salt, or sulphurous saline water, will answer st.

The diet should consist of a proper proportion of getable and animal food, and pure or distilled water ed for the common beverage.

Scarlet Fever. See page 240.

Of Sciatica.

When irritation occurs in the nerves of the hip- nt, or the great nerve of the thigh, it is thus termed. ke rheumatism in other parts of the body, it is both per-irritative and sub-irritative.—*See Rheumatism.*

Of Scurvy.

The disease of the skin, termed *land-scurvy*, is not oduced by contagion; it more frequently occurs in d than in warm climates. Sailors, and such as are ut up in besieged places, are generally its victims. e first appearance of scurvy is evinced by a pale ated complexion, lassitude, and a disinclination to tion, with diminished energy in every muscular ex- ion. It is attended with spongy gums, livid spots the skin, offensive breath, edematous swelling of legs, foul ulcers, fetid urine, and extremely offen- e stools; the pulse is small, frequent, and, towards last, intermits. This disease, in its last stage, ex- its a most lamentable and wretched appearance; h considerable aggravation of the above symptoms, joints become swelled and stiff, the tendons of the s rigid and contracted, general emaciation, bleeding different parts of the body, the stools extremely d; at length, violent purging or dysentery comes and soon terminates the tragic scene.

Causes.—This disease arises, in the first instance, from the want of fresh provisions, and a due quantity of vegetables; it is probably assisted by the prevalency of cold and moisture, and such other causes as depress the nervous energy; as indolence, confinement, neglect of cleanliness, much labour and fatigue, sadness, despondency, &c. A preternatural saline state of the fluids, is assigned by Dr. Cullen as its proximate cause. It seems to depend more on a deficiency of nourishment, than a vitiated state of the fluids. The reason that salted meat is so productive of scurvy is, because it is drained of its nutritious juices, which run off in brine, its fibres being at the same time hardened and rendered more difficult of digestion.

Treatment.—The following medicine, if regularly taken for three or four months together, will seldom fail of effecting a cure of scurvy in England, especially if due attention be paid to the regimen of the patient.

Take of electuary of senna, two ounces; Ethiop's mineral, one ounce; powder of rhubarb, one drachm; syrup of sugar, sufficient to form the whole into an electuary. The size of a large nutmeg of this electuary to be taken night and morning.

N. B. Ethiop's mineral should be made with quicksilver and flowers of brimstone, *equal parts;* but what is sold in shops is seldom, if ever, thus made; and yet the success of the medicine depends on the *genuineness* of it.

A diet of fresh vegetables, and a beverage strongly impregnated with the juice of lemons, oranges, and the sub-acid fruits, are more efficacious in the cure of this disease than the most powerful anti-scorbutic medicines. The essences of malt and spruce have likewise been found of great service, probably from the quantity of fixed air they contain. When lemon or orange-juice cannot be obtained, nitre dissolved in vinegar, in the proportion of an ounce of the former to a quart of the latter, has been found one of the best substitutes: water acidulated with the nitric acid is perhaps not less efficacious: from one to two ounces or more of the former may be given three or four times in the

rse of the day; and of the latter, a quantity con-
ing about fifteen or twenty drops of the nitric acid
y be taken every five or six hours. The vitriolic
d, the Peruvian bark, and the red sulphate of iron,
likewise very valuable remedies in the far-advanced
ges of this disease.

The room or cabin of the patient should be fumi-
ed two or three times with the nitrous vapours;
ich, with cleanliness, will contribute much towards
recovery of the patient.

The feces and urine should be thrown away as soon
r they are evacuated as possible, and the vessel
sed out with vinegar.

The bleeding should be suppressed by the applica-
n of styptics; such as a solution of alum, with
sils of lint.

n case of ulceration, the lemon-juice, with tincture
myrrh, or vinegar and myrrh, will prove the most
cacious application.

The *true* sea-scurvy being attended with diminished
rgy of the brain, exhibits, in a remarkable degree,
great influence of the passions of the mind. De-
ssion of spirits, bordering on despondency, is its
stant attendant, the counteracting of which, expe-
ce has proved to be of the utmost consequence to
recovery of the patient. In Lord Anson's voyage,
as noticed, in reiterated experience of this malady,
hat whatever discouraged the seamen, or at any
e damped their hopes, never failed to increase the
emper; for it usually killed those who were in the
stages of it, and confined those to their hammocks
) were before capable of some kind of duty; so
:, as the writer judiciously observes, it seemed a
gh alacrity of mind and sanguine thoughts were
contemptible preservatives from its fatal malignity."
ll in Mr. Ive's Journal, a remarkable instance of
good effects of an opposite state of mind is given:
pon the British fleet coming into the Bay of Hieres,
. 1744, the men understood they were soon to en-
e the enemy's fleet. There appeared not only in
healthy, but also in the sick, the highest marks of

satisfaction and pleasure; and the latter mended surprisingly daily, insomuch that, on the 11th of February, the day they engaged the combined fleets of France and Spain, there were not above four or five men but what were at their fighting quarters."

The siege of Breda, in the year 1625, affords an example of the influence of the mind in this disease still more striking: "That city, from a long siege, suffered all the miseries that fatigue, bad provisions, and distress of mind, could bring on its inhabitants. Among other misfortunes, the scurvy made its appearance, and carried off great numbers. This, added to the other calamities, induced the garrison to incline towards a surrender of the place; when the Prince of Orange, anxious to prevent its loss, and unable to relieve the garrison, contrived, however, to introduce letters, addressed to the men, promising them the most speedy assistance. These were accompanied with medicines against the scurvy, said to be of great price, but of still greater efficacy; many more were to be sent to them. The effects of this stratagem were truly astonishing: three small phials of medicine were given to each physician. It was publicly given out that three or four drops were sufficient to impart a healing virtue to a gallon of liquor. They now displayed their wonder-working virtue; even the commanders were not let into the secret of this cheat on the soldiers. They flocked in crowds about the dispensers of it, every one soliciting that a part might be reserved for his use. Cheerfulness again appeared in every countenance, and an universal confidence prevailed in the sovereign virtues of the remedy. The effect of this delusion was really astonishing; for many were quickly and perfectly recovered; such as had not moved their limbs for a month before, were seen walking in the streets, with their limbs sound, straight, and whole. They boasted of the cure of the Prince's remedy, the motion of their joints being restored by simple friction with oil. Many who had declared they had been rendered worse by all former remedies, recovered in a few days, to their inexpressible joy, and the no less

neral surprise, by their taking what was affirmed to their gracious Prince's cure.

This curious relation, adds Dr. Lind, would perps hardly gain credit, were it not in every respect nsonant to the most accurate observations, and the st-attested descriptions of that disease. It is given by an eye-witness, who, an author of great candour forms us, wrote down every day the state of his pants, and seems to be more surprised with their unpected recovery than he probably would have been d he been better acquainted with the nature of the alady. An important lesson in physic is hence to learned, by the wonderful and powerful influence the passions of the mind on the state and disorders the body. This is too often overlooked in the cure disorders, many of which are sometimes attempted the sole mechanical operation of drugs, without lling in to our assistance the strong powers of the agination, or the concurring influence of the soul. ence it is, the same remedy will not always produce e same effect even in the same person; and that comon remedies often prove wonderfully successful in e hands of bold quacks, but do not answer the purse in a timorous and distrustful patient.

Of Spitting of Blood.

It is often difficult to determine, in cases of spitting blood, whether it proceeds from the mouth, from e fauces, from the adjoining cavities of the nose, om the stomach, or from the lungs; it is, however, importance to ascertain its source, which is best ne by attending to the following observations: hen the blood proceeds from some part of the outh itself, it comes out *without* any *hawking* or *ughing*; and generally, upon inspection of the mouth, e particular source of it becomes evident. When proceeds from the fauces, or the adjoining cavities

of the nose, it may be brought out by hawking, and sometimes by coughing, as from the lungs, so that in this way a doubt may arise concerning its *real* source. A bleeding from the fauces is, however, *more rare* than from the lungs, and seldom happens but to persons who have been *before* liable, either to bleeding at the nose, or to some evident cause of erosion; and in most cases, by looking into the fauces, the blood may be perceived coming from thence.

When the blood is of a *florid* and *frothy* appearance, and brought up with more or less *coughing*, *preceded* by *rigors*, and other feverish symptoms, with *anxiety*, and a sense of *tightness across the chest*, there can be no doubt but that its source is from the *lungs*. When vomiting accompanies the throwing out of blood from the mouth, as vomiting and coughing often mutually excite each other, so they may be frequently joined, and render it doubtful whether the blood thrown out proceeds from the lungs or the stomach; but attention to the following circumstances will help to form a correct opinion: the blood proceeding from the lungs is usually of a *florid* colour, and mixed with a little *frothy mucus only;* while the blood from the *stomach* is commonly of a *dark colour*, more grumous, and mixed with the *contents of the stomach;* the coughing or vomiting, *first*, though they are afterwards joined, may sometimes point out the source of the blood; and, lastly, much may be learned from the symptoms which have *preceded* the discharge.

When the source is from the stomach, it is termed *vomiting of blood;* when its origin is in the mouth or fauces, it is of little consequence, and may be checked by the use of the following gargle:

Take of red rose leaves, two drachms; infuse in a pint of boiling water till cold; then strain, and add diluted sulphuric acid, thirty drops.

The loss of blood from the arm, if the complaint be attended with a plethoric state of the system, will be proper. If the cause be erosion, or ulceration, or if it occur during fever, the treatment must depend on the nature of such fever or ulceration.

What is strictly meant by *spitting of blood*, is when blood is discharged from a ruptured vessel in the gs, which is technically termed *Hæmoptoe*. It curs generally from the age of sixteen to thirty-five, l chiefly arises from a faulty proportion between capacity of the vessels of the lungs and those of rest of the body; accordingly it is often an here-ary disease, which implies a peculiar and ill con-mation. It likewise happens to persons who have sufficient room for the lungs, and it appears by *rowness* of the *chest*, and by the prominency of their oulders, which last is a mark of their having been g liable to a difficult respiration. It happens also persons of a delicate slender make, of which a g neck is a sign; to persons of much sensibility and tability, and therefore of quick parts, whose bodies generally of a delicate texture. It likewise occa-nally arises from suppression of the menstrual dis-rge, from plethora, and violent exercise of the gs.

A frequent cause of the rupture of a blood-vessel in lungs, is, the deposition of scrophulous matter, ming what are termed tubercles. The blood-vessels ng partially distended by the pressure of tubercles, easily ruptured by cough or bodily exertion. The gs of people who have died of the excessive loss of od, or of the consequence of the ruptured vessel, pulmonary consumption, have generally been nd loaded with tubercles.

TREATMENT.—The discharge of blood may be mo-rated by avoiding whatever has a tendency to irri-e the body, and to increase the action of the heart; ow diet should therefore be strictly observed, and ernal heat and bodily exercise avoided: the air of room should likewise be kept cool, and the drink ich should consist chiefly of barley-water, acidu-ed with lemon-juice) taken cold; and the patient be suffered to exert his voice. After the operation a little gentle aperient medicine, as lenitive electu-, or an infusion of senna, with a little cream of tar dissolved in it, two table-spoonfuls of the follow-

ing mixture may be taken, to diminish the excitability of the system, and quiet the circulation:

Take of almond-emulsion, six ounces; tincture of myrrh, two drachms; syrup of white poppies, half an ounce. Mix. In case of much cough, five drops of laudanum may be added to each dose of the mixture.

If the pulse be not much reduced by the discharge, a few ounces of blood should be taken from the arm, and a blister applied over the breast-bone, especially if pain be experienced in the chest, either on coughing or breathing.

Emetics have been given in this disease with advantage by Dr. Robinson, and still more lately by Dr. Stoll, of Vienna, who observes, that in discharges of blood from the lungs, ipecacuan powder sometimes acts like a charm, seeming to close the open vessel sooner and more effectually than any other remedy.* The good effects of this remedy are probably the consequence of the compression the lungs undergo during vomiting, from the action of the diaphragm and expiratory muscles.

When the discharge has ceased, its recurrence should be prevented by the use of cooling, astringent medicines; as, a wine-glassful of the infusion of red rose leaves, with six drops of the diluted vitriolic acid, three or four times a day; the loss of blood from the arm, on experiencing any pain in the chest or difficulty of breathing; a seton in the side, or perpetual blister between the shoulders, or over the breast-bone; flannel next the skin; avoiding much exercise, particularly of the lungs; the occasional use of aperient medicines to obviate costiveness; and a spare diet, consisting principally of animal jellies.

* A Dr. Stone, in a treatise on indigestion, disapproves of the use of emetics, because *they may* occasion a rupture of a blood-vessel of the lungs!

Of Strangury.

When this complaint succeeds the application of sters, the free use of diluting liquids, as linseed tea barley-water, with a few grains of nitre-powder, and ittle gum-arabic, will generally afford relief in the urse of a few hours. When it is occasioned by the ssure of an impregnated womb, costiveness should removed by small doses of castor oil; and an horiital position be observed as much as possible. hen attendant on the stone or gravel, it may be ieved by the means already recommended for those nplaints.

Profuse Sweating.

A free perspiration, attendant on inflammatory fes, or internal inflammation, as pleurisy, &c. should ays be considered *salutary;* but if it be evidently consequence of debility or relaxation of the system, diluted vitriolic acid will prove the best remedy. e manner of making this acid is as follows:

To seven ounces of distilled, or boiled water when d, add by degrees one ounce of sulphuric acid by ight. Twenty drops of this may be taken two or ee times a day, in camomile-tea.

n all cases of perspiration, it is of great importance determine whether it be a *disease* or an *effort* of *ure* to relieve the system from plethora, which often uires an experienced practitioner to decide; even colliquative sweats attendant on pulmonary conption or hectic fever are to be suppressed with the atest caution.

Of Teething.

Dr. Arbuthnot observes, above a tenth part of infants die in teething, by symptoms proceeding from the irritation of the tender nervous parts of the jaws, occasioning inflammations, fevers, convulsions, gangrenes, &c. These symptoms are in a great measure owing to the very delicate and exquisite sensibility of the nervous system at this time of life, which is too often increased by an effeminate education. Hence children who are delicately brought up, always suffer most in teething, and often fall by convulsive disorders.

About the sixth or seventh month the teeth generally begin to make their appearance; first, the *incisores*, or fore-teeth; next, the *canini*, or dog-teeth; and, lastly, the *molares*, or grinders. About the seventh year, there comes a new set; and about the twentieth the two inner grinders called *dentes sapientiæ*, the teeth of wisdom.

Children about the time of cutting their teeth slaver much, and have generally a looseness. When the teething is difficult, especially when the dog-teeth begin to make their way through the gums, the child has startings in his sleep, tumors of the gums, watchings, gripes, green stools, the thrush, fever, difficult breathing, and convulsions.

Difficult teething requires nearly the same treatment as an inflammatory disease. If the body be bound, it must be opened either by emollient clysters or gentle purgatives; as manna, magnesia alba, rhubarb, senna, or the like. The food should be light, and in small quantity; the drink plentiful, but weak and diluting, as infusions of balm, or of the lime-tree flowers; to which, about a third or fourth part of milk may be added.

If the fever run high, bleeding may be necessary; but this in very young children ought always to be sparingly performed. It is an evacuation which they bear the worst of any. Purging, vomiting, or sweating

ree much better with them, and are generally more neficial. Harris, however, observes, that when an lammation appears, the physician will labour in n, if the cure be not begun with applying a leech der each ear. If the child be seized with convul-n-fits, a blistering-plaister may be applied between shoulders, or one behind each ear.

Sydenham says, that in fevers, occasioned by teeth-; he never found any remedy so effectual as two, ee, or four drops of spirit of hartshorn in a spoon- of simple water, or other convenient vehicle, given ery four hours. The number of doses may be-ir, five, or six. I have often prescribed this medi-e with success, but always found a larger dose cessary. It may be given from five drops to fifteen twenty, according to the age of the child; and when stiveness does not forbid it, three or four drops of danum may be added to each dose.

In Scotland, it is very common, when children are tting their teeth, to put a small Burgundy pitch ister between the shoulders. This generally eases tickling cough which attends teething, and is by means an useless application. When the teeth are t with difficulty, it ought to be kept on during the ole time of teething. It may be enlarged as occa-n requires, and ought to be renewed at least once a tnight.

Several things have been recommended for rubbing gums, as oils, mucilages, &c. but from these much not to be expected. If any thing of this kind is to used, we would recommend a little fine honey, ich may be rubbed on with the finger three or four es a day. Children are generally at this time dis-sed to chew whatever they get into their hands. this reason they ought never to be without some-ng that will yield a little to the pressure of their ns, as a crust of bread, a bit of liquorice-root, or h like.

With regard to cutting the gums, we have seldom own it to be of any great benefit. In obstinate cases, wever, it ought to be tried. It may be performed

by the finger-nail, the edge of a sixpenny-piece that is worn thin, or any sharp body which can be with safety introduced into the mouth; but the lancet in a skilful hand is certainly the most proper.

In order to render the teething less difficult, parents ought to take care that their children's food be light and wholesome, and their nerves be braced by sufficient exercise without doors, the use of the cold-bath, &c. Were these things duly regarded, they would have a much better effect than teething-necklaces, or other nonsensical amulets, worn for that purpose.

Of Tenesmus.

Symptoms.—This disease is a constant irritation at the fundament, with an inclination to go to stool, when little or nothing can be discharged, except slime or mucus, which is sometimes streaked with blood.

Causes.—This complaint is often attendant on stone in the bladder, and frequently occasioned by inflammation of the neck of the bladder, from gravel, or the use of astringent and stimulating injections. It is likewise often produced by small worms in the rectum, acrid humours, the pressure of an impregnated womb, piles, &c.

Treatment.—When it is produced by the irritation of a stone in the bladder, it will require the same treatment as already directed for stone.

When it is occasioned by inflammation of the neck of the bladder (from whatever cause the inflammation may arise), the application of leeches, the use of castor-oil, and the warm bath, will be necessary, and bleeding, if the subject be of a plethoric habit.

If worms be the cause, the treatment recommended for their expulsion will be necessary; and when an attendant on pregnancy, small doses of rhubarb, or lenitive electuary, and lying on the right or left side when in bed, instead of the back, will generally afford relief.

In all such cases, *aloetic* medicines are highly impro-r; the frequent use of which having, from their stimu-ting effects on the rectum, often produced the disease.

Of Tetany.

This disease is a spasmodic affection, and occurs iefly in warm climates.

Symptoms.—It is characterized by an involuntary d continued contraction of all or several of the mus-s of the body, receiving various appellations accord-g to the situation of the parts attacked. When the uscles of the jaw are principally affected, it is named *rismus* or *Locked Jaw.* It commences with a stiff-ss in the back of the neck, which gradually increases a pain, and renders the affected part entirely im-oveable. It extends to the root of the tongue, fects the part concerned in swallowing, then attacks e front of the chest, and lastly seizes the back.—pasms at length arise in the stiffened parts, occasion-g such excruciating pain, that death is often wished r both by the patient and his attendants. A remis-on of the spasms often takes place every ten or fifteen nutes, but is renewed with aggravated torture on e slightest causes, even by the least motion of the rson, or the touch of an attendant. The teeth be-me entirely closed, so that nothing can be introduced to the mouth; and towards its termination, the vo-ntary muscles of the body are affected, producing e most hideous deformity.

No permanent fever attends this disease, though me temporary symptoms of it appear during the olence of the spasms. No habit of body is exempt om it, but the robust and strong are most frequently victims.

Causes.—Cold and moisture, particularly sudden cissitudes or irritation of the nerves in consequence local injury, as punctures, cuts, &c. are noticed by

medical authors as causes of this disease. The principal seat of it is the brain.

Treatment. — When the disease arises from a wounded nerve, the most important step toward the cure is, to cut off the communication of the part with the brain, either by dividing the nerve in its course, or by destroying, to a certain extent, the affected part. If the wound be on a finger or a toe, it should be amputated.

Opium is the only remedy capable of allaying the morbid irritation that exists in this disease: sixty drops of laudanum should be given in a little wine every three or four hours, and the dose increased ten or twenty drops each time, till the violence of the spasms abates; it should then be continued at that dose for some time longer, the disease being very liable to recur. This medicine, even in large doses, does not operate in these cases as in other disorders; for although it produce some remission of the spasm and pain, it scarcely every induces sleep, or occasions that stupor, intoxication, or delirium, which it generally does in other complaints. Opium has been given, and in a few instances with success, to the extent of half a drachm, which is equal to about three quarters of an ounce of laudanum. These medicines should not be given by any one who is not a professional man.

If the muscles of the jaw, and those concerned in swallowing, be so much affected that this remedy cannot be got into the stomach, it must be administered clysterwise, by dissolving about two scruples or a drachm of opium in half a pint of gruel, which should be injected every three or four hours. If the jaws be so closed by the spasm of the muscles, that they cannot be opened during any period of the day, it will be advisable to remove a portion of the front teeth by a small saw or trephine, for it is certainly of great consequence to get the remedy, as well as nourishment, into the stomach, which may in general be afterwards done by means of a flexible tube; if, however, the muscles of deglutition and those of the gullet be affected,

e body should be immersed in warm milk two or ree times a day, from which a sufficient quantity ll be absorbed to support life; and I think if the lk were strongly impregnated with opium, it might o tend to abate the spasms.

Cold-bathing is much extolled, and it seems in ny instances has succeeded in curing this disease: d as the use of the warm bath is very doubtful, and many cases has proved hurtful, the cold bath should ve the preference.

The application of blisters, and loss of blood, have pparently, in some instances, proved serviceable; but the majority of cases they have had no salutary ect, and in many have appeared to aggravate the mptoms.

This disease being entirely an affection of the nerves, ction by the electrical brush, as directed in cases of eumatism and gout, is likely to prove of service by citing a healthy action in the nerves of the part.

The cerebral system being often disturbed by irrita- n in the stomach or intestines, it will also be ad- able to empty the intestinal canal by a strong dose the cartharic extract and calomel, both by the outh and clysterwise, which should be frequently peated. As the exhibition of opium will retard the tion of purgative medicines, instead of administer- it by the mouth, it might answer as well, and pro- bly better, if the body were immersed in a strong ution of opium in lukewarm water. And as it is the *commencement* of this disease that remedies are be employed with a *probability* of success, medical l should be procured as early as possible.

Thrush, or Aphthæ.

The aphthæ are little white ulcers affecting the ole inside of the mouth, tongue, throat, and sto- ach of infants. Sometimes they reach through the

whole intestinal canal; in which case they are very dangerous, and often put an end to the infant's life.

If the aphthæ are of a pale colour, pellucid, few in number, soft, superficial, and fall easily off, they are not dangerous; but if opake, yellow, brown, black, thick, or running together, they ought to be dreaded.

It is generally thought that the aphthæ owe their origin to acrid humours: we have reason, however, to believe they are more frequently owing to too hot a regimen both of the mother and child. It is a rare thing to find this complaint in a child who is not dosed with wine, punch, cinnamon-waters, or some other hot and inflaming liquors, almost as soon as it is born. It is well known that these will occasion inflammatory disorders even in adults: is it any wonder then that they should heat and inflame the tender bodies of infants, and set, as it were, the whole constitution on a blaze?

The most proper medicines for the aphthæ are vomits, and gentle laxatives. Five grains of rhubarb, and half a drachm of magnesia alba, may be rubbed together, and divided into six doses, one of which may be given to the infant every four or five hours till they operate. These powders may either be given in the child's food, or a little of the syrup of pale roses, and may be repeated as often as it is found necessary to keep the body open. Or, the following mixture may be used with advantage:

Take of manna, half an ounce; of pure water, two ounces; dissolve and strain; and then add twenty drops of tartarized wine of antimony. Give a teaspoonful of it every hour till it operates.

It is common in this case to administer calomel: but as that medicine sometimes occasions gripes, it ought always to be given to infants with caution.

Many things have been recommended for gargling the mouth and throat in this disease; but it is not easy to apply these in very young children; we would therefore recommend it to the nurse to rub the child's mouth frequently with a little borax and honey, or

th the following mixture: take fine honey, an ounce; rax, a drachm; burnt alum, half a drachm; rose-ter, two drachms; mix them together.

To two drachms of tincture of myrrh, and the same antity of honey of roses, add one ounce and half lime-water. With a fine rag on the end of a probe, ply this to the parts affected.

A very proper application in this case, is a solution ten or twelve grains of white vitriol in eight ounces barley-water. These may be applied with the fin-r, or by means of a bit of soft rag tied to the end of probe.

Of the Tooth-ache.

This well-known disease generally arises from the posure of the branches of the nerve of the tooth to ld air or acrid matter, in consequence of caries. It however, frequently occasioned by inflammation of e membrane lining the socket, in which case the oth is a little elevated, seldom carious, very painful the touch, and attended with a throbbing pain, hich often extends to the neighbouring teeth. This ter kind generally terminates in the formation of tter, commonly termed *a gum-boil*.

When the tooth is carious, its extraction may in me instances be advisable; which, when properly naged, is attended with considerably less pain than severe paroxysm of the tooth-ache.

When the decay of the tooth appears to be a *consti-tional* disease, its removal is not in all cases to be vised, as the same diseased action will, in that case, y probably go on in another tooth. It is a prevail-g opinion with surgeons and dentists, that one bad oth will contaminate the one next to it; in this in-nce, I am well persuaded that its continuance in the v will be the means of preserving the others sound.

When it is *inflammatory*, in which case the tooth is nerally sound, the cure should be attempted by

extracting blood from the gum by leeches or scarification, which, with the use of an aperient medicine, and the antimonial febrifuge powder, will generally succeed; if, however, it should prove obstinate, a blister may be applied behind the ear, and the scarification or application of leeches be repeated. The Angustura bark powder, in the dose of fifteen grains, taken every four hours in a little water, is much recommended as a remedy for tooth-ache. When it is entirely nervous, or arises from a disordered state of the stomach, I have known this medicine to succeed in curing it in a few hours.

The violence of pain may in all cases be mitigated by the application of ether and laudanum, by means of lint. The mouth should be previously rinsed out with warm water, to remove any acrid matter that may be lodged in the cavity of the tooth. A pill of camphor and opium, introduced into the hollow of the tooth, is a popular remedy; as are also the oils of cloves, thyme, and pellitory of Spain. The exclusion of the atmospheric air, by filling the cavity with a mixture of gum-mastic and white wax, or a little lint, will not only prevent the recurrence of tooth-ache, but often suspend the progress of caries.

Dr. Handel, of Mentz, recommends the following pill as a very powerful sedative in tooth-ache, when occasioned by corrupted or rotten teeth; upon the application of which, the doctor states, the excruciating pain almost instantly ceases:

Take of opium, half a drachm; extract of deadly nightshade, and camphor, of each six grains; oil of henbane, one drachm; cajeput oil, and tincture of cantharides, of each eight drops. To be formed into a mass, and a little to be introduced into the decayed tooth, either in the form of a pill, or on lint. Or,

Take of pellitory of Spain, in powder, one drachm; oil of cinnamon, ten drops; mucilage of arabic, enough to make into a mass for pills. A small pill put into a decayed tooth, will seldom fail to give relief.

The effects of fear on an acute attack of the tooth-ache is remarkable; the sight of an instrument for

racting the tooth often giving perfect relief, even en the pain has arisen from a carious tooth.

Of all animals, man is the most subject to disease the teeth; and it is strange that a decay of this very eful part of the body should take place in young ople, apparently in a perfect state of health. The ms, by the firmness of their texture, tend to support e teeth in their sockets; and, being also abundantly pplied with blood-vessels, the teeth, and particularly eir external coats, termed enamel, derive their nouhment from them. Hence it must appear clear, that the healthy state of the gums depends the health the teeth. Indeed, in all cases of caries of a tooth, e uniformly find the surrounding gum either diseased, raded, or detached from the teeth, by the use of ne pernicious tooth-powder, or hard brushes. The atter that collects on the teeth, termed tartar, is evintly a morbid secretion from the gums, in consenence of their spongy structure, or of being separated om the teeth, the latter of which is the most frequent use. The brush and powder employed for the purse of removing the matter, both tend to aggravate e evil, by abrading the gums as well as the enamel the teeth, and by the spreading of the hairs of a ush, the gum is detached from the teeth, and inited. Hence people who are in the habit of using em are under the necessity of repeating the operation ery morning, in order to keep them clean.

The teeth receiving their nourishment from the gums, diseased state of the gums, or their detachment from e teeth, sufficiently account for caries or unhealthy ppearance of the teeth. I therefore advise people to ay more attention to the state of the gums; and inead of cleaning the teeth with powder and a hard rush, to wash the gum gently, internally as well as xternally, every morning, or three times a week, with qual parts of tincture of rhatany-root and water, by eans of a piece of sponge fastened to an ivory handle. his, by constringing and strengthening the gum, will ot only render the teeth more firm in their sockets, at effectually preserve them from caries and tooth-

ache, and prevent the accumulation of tartar. The teeth may also be gently rubbed with the same sponge, and diluted tincture of rhatany, with the surface covered with the charcoal of the areca-nut. A hair brush should not be employed but when the tartar, in consequence of neglect, adheres too firmly to the teeth to be removed by the sponge. When a hair brush is employed, care should be taken that the gum be not irritated by it.

Such as follow these directions will seldom have occasion to employ a dentist. Those that are in the habit of using a hair brush, and the mineral tooth-powders of dentists, and stimulating washes of tincture of myrrh, &c. have the edges of their gums tumefied and tender; while the gums of those who do not use them, and who have the soundest teeth, are nearly level with the surface of the teeth.

Ricketty and scrophulous children are very subject to caries of the teeth. In those cases topical management will be of little avail, unless the state of the constitution be corrected.

Nothing is more injurious to the enamel of the teeth than sugar or sweet-meats, particularly in ricketty or scrophulous subjects.

Under the head of *Tooth Powder*, some further observations and explicit directions for its use, are given.

People subject to irritation of the nerves of the teeth and jaws should pay particular attention to the state of the digestive organs *(see Indigestion)*, and keep the head warm during the night, by means of a flannel cap.

[The Reader may recollect, that, in page 272, an intimation was given that the following subject would be omitted in this work; but the Editor, on considering that individuals may be unfortunately drawn by fair speeches and hopes of impunity into an unlawful intercourse, and thereby receive infection; and that others may suffer without any criminality on their part. Reflecting also on the painful feelings of the infected who may be ashamed to mention their complaints, and who possibly may have no suspicion of the nature of it till its rapid progress has rendered the cure extremely difficult, he has thought it proper to alter his design. What follows, therefore, is inserted chiefly for the modest, and injured part of his readers, to save them from a premature death.]

Of the Venereal Disease.

Bad consequences, no doubt, may arise from igno-
t persons tampering with medicines in this disorder;
t the danger from that quarter seems to be more
n balanced by the great and solid advantages which
st arise to the patient from an early knowledge of
case, and an attention to a plan of regimen, which,
t does not cure the disease, will be sure to render
nore mild, and less hurtful to the constitution.

It is peculiarly unfortunate for the unhappy persons
o contract this disease, that it lies under disgrace.
is renders disguise necessary, and makes the pa-
nt either conceal his disease altogether, or apply to
se who promise a sudden and a secret cure; but
o, in fact, only remove the symptoms for a time,
ile they fix the disease deeper in the habit. By
s mean a slight infection, which might have been
ily removed, is often converted into an obstinate,
l sometimes an incurable, malady.

Another unfavourable circumstance attending this
ease is, that it assumes a variety of different shapes,
l may with more propriety be called an assemblage
diseases, than a single one. No two diseases can
uire a more different mode of treatment than this
es in its different stages. Hence the folly and dan-
of trusting to any particular nostrum for the cure
t. Such nostrums are, however, generally adminis-
ed in the same manner to all who apply for them,
hout the least regard to the state of the disease,
constitution of the patient, the degree of infection,
l a thousand other circumstances of the utmost
portance.

Though the venereal disease is generally the fruit
unlawful embraces, yet it may be communicated
the innocent as well as the guilty. Infants, nurses,
lwives, and married women whose husbands lead
solute lives, are often affected with it, and frequently
e their lives, by not being aware of the danger in
e time. The unhappy condition of such persons
l certainly plead our excuse, if any excuse be ne-

cessary, for endeavouring to point out the symptoms and cure of this too common disease.

To enumerate all its different symptoms, however, and to trace the disease minutely through its various stages, would require a much larger space than falls to this part of my subject; I shall therefore confine my observations chiefly to circumstances of importance, omitting such as are either trifling, or which occur but seldom. I shall likewise pass over the history of the disease, with the different methods of treatment which it has undergone since it was first introduced into Europe, and many other circumstances of a similar nature; all of which, though they might tend to amuse the reader, yet could afford him little or no useful knowledge.

OF THE VIRULENT GONORRHŒA.

The virulent gonorrhœa is an involuntary discharge of infectious matter from the parts of generation in either sex. It generally makes its appearance within eight or ten days after the infection has been received; sometimes indeed it appears in two or three days, and at other times not before the end of four or five weeks. Previous to the discharge, the patient feels an itching, with a small degree of pain in the genitals. Afterwards a thin glary matter begins to distil from the urinary passage, which stains the linen, and occasions a small degree of titillation, particularly at the time of making water; this, gradually increasing, arises at length to a degree of heat and pain, which are chiefly perceived about the extremity of the urinary passage, where a slight degree of redness and inflammation likewise begin to appear.

As the disorder advances, the pain, heat of urine, and running, increase, while fresh symptoms daily ensue. In men, the erections become painful and involuntary, and are more frequent and lasting than when natural. This symptom is more troublesome when the patient is warm in bed. The pain which was at first only perceived towards the extremity, now be-

ns to reach all up the urinary passage, and is most tense just after the patient has done making water. he running gradually recedes from the colour of seed, ows yellow, and at length puts on the appearance of atter.

When the disorder has arrived at its height, all the mptoms are more intense; the heat of the urine is great, that the patient dreads making water; and ough he feels a constant inclination this way, yet it done with the greatest difficulty, and often by rops; the involuntary erections now become extreme- painful, and frequent; there is also a pain, heat, and nse of fulness about the seat, and the running is entiful and sharp, of a brown, greenish, and some- mes of a bloody colour.

By a proper treatment, the violence of the symp- ms gradually abates; the heat of the urine goes off, e involuntary and painful erections, and the heat d pain about the seat, becomes easier; the running so gradually decreases, grows whiter and thicker, l at last it entirely disappears.

By attending to these symptoms, the gonorrhœa may generally distinguished from any other disease. here are, however, some few disorders for which may be mistaken, as an ulcer in the kidneys, or adder, the fluor albus or whites, in women, &c. ut, in the former of these, the matter comes away ly with the urine, or when the sphincter of the blad- r is open; whereas in a gonorrhœa the discharge constant. The latter is more difficult to distinguish, d must be known chiefly from its effects, as pain, mmunicating the infection, &c.

Regimen.—When a person has reason to suspect at he has caught the venereal infection, he ought ost strictly to observe a cooling regimen, to avoid ery thing of a heating nature, as wines, spirituou quors, rich sauces, salted, high-seasoned, and smoke- ied, provisions, &c. as also aromatic and stimulat- g vegetables, as onions, garlic, shalot, nutmeg, mus- rd, cinnamon, mace, ginger, and such like. His od ought chiefly to consist of mild vegetables, milks,

broths, light puddings, panado, gruels, &c. His drink may be barley-water, milk and water, decoctions of marshmallows and liquorice, linseed-tea, or clear whey. Of these he ought to drink plentifully. Violent exercise of all kinds, especially riding on horseback, and venereal pleasures, are to be avoided. The patient must beware of cold, and when the inflammation is violent, he ought to keep his bed.

MEDICINE.—A virulent gonorrhœa cannot always be cured speedily and effectually at the same time. The patient ought therefore not to expect, nor the physician to promise it. It will often continue for two or three weeks, and sometimes for five or six, even where the treatment has been very different.

Sometimes, indeed, a slight infection may be carried off in a few days, by bathing the parts in warm milk and water, and injecting frequently up the urethra a little sweet oil, or linseed-tea, about the warmth of new milk. Should these not succeed in carrying off the infection, they will, at least, have a tendency to lessen its virulence.

To effect a cure, however, astringent injections will generally be found necessary. These may be various ways prepared, but I think those made with the white vitriol are both more safe and efficacious. They can be made stronger or weaker, as circumstances may require; but it is best to begin with the most gentle, and increase their power if necessary. I generally order a drachm of white vitriol to be dissolved in eight or nine ounces of common or rose-water, and an ordinary syringe-full of it to be thrown up three or four times a day. If this quantity does not perform a cure, it may be repeated, and the dose increased.

Although it is now very common to cure the gonorrhœa by astringent injections, there are still many practitioners who do not approve this mode of practice. I can, however, from much experience, assert, that it is both the most easy, elegant, and efficacious, method of cure; and that any bad consequences arising from it, must be owing to the ignorance or misconduct of the practitioner himself, and not the remedy.

Many, for example, use strong preparations of lead, all of which are dangerous, when applied to the internal surfaces of the body; others use escharotics, which inflame and injure the parts. I have known a gonorrhœa actually cured by an injection made of green tea, and would always recommend gentle methods, where they will succeed.

Whether injections be used or not, cooling purges are always proper in a gonorrhœa. They ought not, however, to be of a strong or drastic kind. Whatever raises a violent commotion in the body, increases the danger, and tends to drive the disease deeper into the habit. Procuring two or three stools every second or third day for the first fortnight, and the same number every fourth or fifth day for the second, will generally be sufficient to remove the inflammatory symptoms, to diminish the running, and to change the colour and consistence of the matter, which gradually becomes more white and ropy as the virulence abates.

If the patient can swallow a solution of salts and manna, he may take six drachms; or if his constitution requires it, an ounce of the former, with half an ounce of the latter. These may be dissolved in an English pint of boiling water, whey, or thin water-gruel, and taken early in the morning.

If an infusion of senna and tamarinds be more agreeable, two drachms of the former, and an ounce of the latter, may be infused all night in an English pint of boiling water. The infusion may be strained next morning, and half an ounce of Glauber's salts dissolved in it. A tea-cupful of this infusion may be taken every half hour till it operates.

Should the patient prefer an electuary, the following will be found to answer very well. Take of the laxative electuary, four ounces; cream of tartar, two ounces; jalap, in powder, two drachms; rhubarb, one drachm; and as much of the syrup of pale roses as will serve to make up the whole into a soft electuary. Two or three tea-spoonfuls of this may be taken overnight, and about the same quantity next morning, every day that the patient chooses to take a purge.

The doses of the above medicines may be increased or diminished, according as the patient finds it necessary. We have ordered the salts to be dissolved in a large quantity of water, because it renders their operation more mild.

When the inflammatory symptoms run high, bleeding is sometimes necessary at the beginning. This operation, as in other topical inflammations, must be repeated according to the strength and constitution of the patient, and the vehemence and urgency of the symptoms.

Medicines which promote the secretion of urine are likewise proper in this stage of the disorder. For this purpose, an ounce of nitre and two ounces of gum-arabic, pounded together, may be divided into thirty doses; one of which may be taken frequently in a cup of the patient's drink. If these should make him pass his urine so often as to become troublesome to him, he may either take them less frequently, or leave out the nitre altogether, and take equal parts of gum-arabic and cream of tartar. These may be pounded together, and a tea-spoonful taken in a cup of the patient's drink four or five times a day. I have generally found this to answer extremely well, both as a diuretic, and for keeping the body gently open.

When the pain and inflammation are seated high, towards the neck of the bladder, it will be proper frequently to throw up an emollient clyster, which, besides the benefit of procuring stools, will serve as a fomentation to the inflamed parts.

Soft poultices, when they can conveniently be applied to the parts, are of great service. They may be made of the flower of linseed, or of wheat-bread and milk, softened with fresh butter, or sweet oil. When poultices cannot be conveniently used, cloths wrung warm out of water, or bladders filled with warm milk and water, may be applied. I have often known the most excruciating pains, during the inflammatory state of the gonorrhœa, relieved by one or other of these applications.

Few things tend more to keep off inflammation in

ıe spermatic vessels, than a proper truss for the scro-
ım. It ought to be so contrived as to support the
sticles, and should be worn from the first appear-
ıce of the disease, till it has ceased some weeks.

The above treatment will sometimes remove the go-
ɔrrhœa so quickly, that the person will be in doubt
hether he really laboured under that disease. This,
ɔwever, is too favourable a turn to be often expected.
more frequently happens, that we are able only to
rocure an abatement or remission of the inflamma-
ɔry symptoms, so far as to make it safe to have re-
ɔurse to the great antidote *mercury*.

Many people, on the first appearance of a gonor-
ıœa, fly to the use of mercury. This is a bad plan.
Mercury is often not at all necessary in a gonorrhœa;
ıd when taken too early, it does mischief. It may
e necessary to complete the cure, but can never be
roper at the commencement of it.

When bleeding, purging, fomentations, and the
ther things recommended as above, have eased the
ain, softened the pulse, relieved the heat of urine,
ıd rendered the involuntary erections less frequent,
ıe patient may begin to use mercury in any form
ıat is least disagreeable to him.

If he takes the common mercurial pill, two at night
ıd one in the morning will be a sufficient dose at
rst. Should they affect the mouth too much, the
ose must be lessened; if not at all, it may be gradu-
lly increased to five or six pills in the day. If calo-
ıel be thought preferable, two or three grains of it,
ɔrmed into a bolus, with a little of the conserve of
eps, may be taken at bed-time, and the dose gradu-
lly increased to six or eight grains. One of the most
ommon preparations of mercury now in use is the
orrosive sublimate. This may be taken in the man-
er afterwards recommended under the confirmed lues
r pox. I have always found it one of the most safe
ıd efficacious medicines when properly used.

The above medicines may either be taken every
lay, or every other day, as the patient is able to bear
hem. They ought never to be taken in such quan-

tity as to raise a salivation, unless in a very slight degree. The disease may be more safely, and as certainly, cured without a salivation as with it. When the mercury runs off by the mouth, it is not so successful in carrying off the disease, as when it continues longer in the body, and is discharged gradually.

Should the patient be purged or griped in the night by the mercury, he must take an infusion of senna, or some other purgative, and drink freely of water-gruel to prevent bloody stools, which are very apt to happen, should the patient catch cold, or if the mercury has not been duly prepared. When the bowels are weak, and the mercury is apt to gripe or purge, these disagreeable consequences may be prevented by taking, with the above pills or bolus, half a drachm or two scruples of diascordium, or of the japonic confection.

To prevent the disagreeable circumstance of the mercury's affecting the mouth too much, or bringing on a salivation, it may be combined with purgatives. With this view the laxative mercurial pill has been contrived, the usual dose of which is three pills, night and morning, to be repeated every other day; but the safer way is for the patient to begin with two, or even with one pill, gradually increasing the dose.

To such persons as can neither swallow a bolus nor a pill, mercury may be given in a liquid form, as it can be suspended even in a watery vehicle, by means of gum-arabic, which not only serves this purpose, but likewise prevents the mercury from affecting the mouth, and renders it in many respects a better medicine.

Take quicksilver, one drachm; gum-arabic, reduced to a mucilage, two drachms; let the quicksilver be rubbed with the mucilage in a marble mortar, until the globules of mercury entirely disappear; afterwards add gradually, still continuing the trituration, half an ounce of balsamic syrup, and eight ounces of simple cinnamon-water. Two table-spoonfuls of this solution may be taken night and morning. Some reckon this the best form in which quicksilver can be exhibited for the cure of gonorrhœa.

It happens very fortunately for those who cannot

brought to take mercury inwardly, and likewise for sons whose bowels are too tender to bear it, that external application of it will answer equally well, in some respects better. It must be acknowledged t mercury, taken inwardly for any length of time, atly weakens and disorders the bowels; for which son, when a plentiful use of it becomes necessary, would prefer rubbing, to the mercurial pills. The mmon mercurial or blue ointment will answer very l. Of that which is made by rubbing together al quantities of hog's-lard and quicksilver, about rachm may be used at a time. The best time for bing it on is at night, and the most proper place inside of the thighs. The patient should stand ore the fire when he rubs, and should wear flannel- wers next his skin, at the time he is using the oint- nt. If ointment of a weaker or stronger kind be d, the quantity must be increased or diminished proportion.

f, during the course of the ointment, the inflamma- n of the genital parts, together with the heat and erishness, should return, or if the mouth should grow e, the gums tender, and the breath become offen- e, a dose or two of Glauber's salts, or some other oling purge, may be taken, and the rubbing intermit- for a few days. As soon, however, as the signs of tting are gone off, if the virulency be not quite cor- ted, the ointment must be repeated, but in smaller antities, and at longer intervals than before. What- r way mercury is administered, its use may be sisted in as long as any virulency is suspected to ain.

During this period, which may be called the second ge of the disorder, though so strict a regimen is necessary as in the first or inflammatory state, yet emperance of every kind must be avoided. The d must be light, plain, and of easy digestion; and greatest indulgence that may be allowed with re- ct to drink, is a little wine diluted with a sufficient antity of water. Spirituous liquors are to be avoided every shape. I have often known the inflammatory

symptoms renewed and heightened, the running increased, and the cure rendered extremely difficult and tedious, by one fit of excessive drinking.

When the above treatment has removed the heat of urine, and soreness of the genital parts, when the quantity of running is considerably lessened, without any pain or swelling in the groin or testicle supervening, when the patient is free from involuntary erections, and, lastly, when the running becomes pale, whitish, thick, void of ill smell, and tenacious or ropy; when all or most of these symptoms appear, the gonorrhœa is arrived at its last stage, and we may gradually proceed to treat it as a gleet, with astringent and agglutinating medicines.

OF GLEETS.

A gonorrhœa frequently repeated, or improperly treated, often ends in a gleet, which may either proceed from a relaxation, or from some remains of the disease. It is, however, of the greatest importance in the cure of the gleet, to know from which of these causes it proceeds. When the discharge proves very obstinate, and receives little or no check from astringent remedies, there is ground to suspect it is owing to the latter; but if the drain is inconstant, and is chiefly observable when the patient is stimulated by lascivious ideas, or upon straining to go to stool, we may reasonably conclude, that it is chiefly owing to the former.

In the cure of a gleet proceeding from relaxation, the principal design is to brace and restore a proper degree of tension to the debilitated and relaxed vessels. For this purpose, besides the medicines recommended in the gonorrhœa, the patient may have recourse to stronger and more powerful astringents; as the Peruvian bark, vitriol, tormentil, bistort, balaustines, tincture of gum-kino, &c.

The Peruvian bark may be combined with other astringents, and prepared in the following manner:

Take of Peruvian bark, bruised, six drachms; of

esh galls, bruised, two drachms; boil them in a ound and half of water to a pound; to the strained quor, add three ounces of the simple tincture of e bark. A wine-glassful of this may be taken three nes a day, adding to each dose fifteen or twenty ops of the acid elixir of vitriol.

The injections may be rendered more astringent by e addition of a few grains of alum, or increasing the antity of vitriol as far as the parts are able to bear it.

The last remedy which we shall mention in this case, the cold bath, than which perhaps there is not a more werful bracer in the whole compass of medicine. ought never to be omitted in this species of gleet, nless there be something in the constitution of the tient which renders the use of it unsafe. The chief bjections to the use of the cold bath are, a full habit, nd an unsound state of the viscera. The danger from e former may always be lessened, if not removed, by rging and bleeding; but the latter is an insurmount- ble obstacle, as the pressure of the water, and the dden contraction of the external vessels, by throw- g the blood with too much force upon the internal arts, are apt to occasion ruptures of the vessels, or a ux of humours upon the diseased organs. But where objection of this kind prevails, the patient ought plunge over head in water, every morning fasting, r three or four weeks together. He should not, owever, stay long in the water, and should take care have his skin dried as soon as he comes out.

The regimen proper in this case is the same as was entioned in the last stage of the gonorrhœa; the diet ust be drying and astringent, and the drink Spa, yrmont, or Bristol waters, with which a little claret red wine, may sometimes be mixed. Any person ay now afford to drink these waters, as they can be very where prepared at almost no expense, by a ixture of common chalk and oil of vitriol.

When the gleet does not in the smallest degree ield to these medicines, there is reason to suspect at it proceeds from ulcers. In this case, recourse ust be had to mercury, and such medicines as tend

to correct any predominant acrimony with which the juices may be affected, as the decoction of China, sarsaparilla, sassafras, or the like.

Mr. Fordyce says, he has seen many obstinate gleets, of two, three, or four years' standing, effectually cured by a mercurial inunction, when almost every other medicine has been tried in vain. Dr. Chapman seems to be of the same opinion; but he says he has always found the mercury succeed best in this case, when joined with terebinthinate and other agglutinating medicines. For which reason the doctor recommends pills made of calomel and Venice turpentine; and desires that their use may be accompanied with a decoction of guaiacum or sarsaparilla. The pills may be made in the following manner:

Take of Venice turpentine, boiled to a sufficient degree of hardness, half an ounce; calomel, half a drachm. Let these be mixed, and formed into sixty pills; of which five or six may be taken night or morning. If, during the use of these pills, the mouth should grow sore, or the breath become offensive, they must be discontinued till these symptoms disappear.

The last kind of remedy which we shall mention for the cure of ulcers in the urinary passage, are the suppurating candles or bougies. As these are prepared various ways, and are generally to be bought ready made, it is needless to spend time in enumerating the different ingredients of which they are composed, or teaching the manner of preparing them. Before a bougie be introduced into the urethra, however, it should be smeared all over with sweet oil, to prevent it from stimulating too suddenly. It may be suffered to continue in from one to seven or eight hours, according as the patient can bear it. Obstinate ulcers are not only often healed, but tumors and excrescences in the urinary-passages taken away, and an obstruction of urine removed, by means of bougies.

OF THE SWELLED TESTICLE.

The swelled testicle may either proceed from infection lately contracted, or from the venereal poison

rking in the blood; the latter, indeed, is not very ommon, but the former frequently happens both in e first and second stages of a gonorrhœa, particularly hen the running is unseasonably stopped by cold, ard drinking, strong drastic purges, violent exercise, e too early use of astringent medicines, or the like.

In the inflammatory stage, bleeding is necessary; hich may be repeated according to the urgency of e symptoms.* The food must be light, and the rink diluting. High-seasoned food, flesh, wines, and very thing of a heating nature, are to be avoided. omentations are of singular service. Poultices of read and milk, softened with fresh butter or oil, are kewise very proper, and ought constantly to be applied when the patient is in bed; when he is up, the sticles should be kept warm, and supported by a ag or truss, which may easily be contrived in such a anner as to prevent the weight of the testicles from aving any effect.

If it should be found impracticable to clear the testicle by the cooling regimen now pointed out, and extended according to circumstances, it will be necessary to lead the patient through such a complete anti-venereal course as shall ensure him against any future uneasiness. For this purpose, besides rubbing the mercurial ointment on the parts as directed in gonorrhœa, the patient must be confined to bed, if necessary, or five or six weeks, suspending the testicle all the hile with a bag or truss, and plying him inwardly ith strong decoctions of sarsaparilla.

When these means do not succeed, and there is reason to suspect a scrophulous or cancerous habit, either f which may support a schirrhous induration, after e venereal poison is corrected, the parts should be mented daily with a decoction of hemlock, the ruised leaves of which may likewise be added to e poultice, and the extract at the same time taken nwardly. This practice is strongly recommended by

* I have been accustomed for some time past to apply leeches to flamed testicles, which practice has always been followed with the ost happy effects.

Dr. Storck in schirrhous and cancerous cases; and Mr. Fordyce assures us, that by this method he has cured diseased testicles of two or three years' standing, even when ulcerated, and when the schirrhus had begun to be affected with pricking and lancing pains.

OF BUBOES.

Venereal buboes are hard tumors seated in the groin, occasioned by veneral poison lodged in this part. They are of two kinds, *viz.* such as proceed from a recent infection, and such as accompany a confirmed lues.

The cure of recent buboes, that is, such as appear soon after impure coition, may be first attempted by dispersion; and, if that should not succeed, by suppuration. To promote the dispersion of the bubo, the same regimen must be observed as was directed in the first stage of a gonorrhœa. The patient must likewise be bled, and take some cooling purges, as the decoction of tamarinds and senna, Glauber's salts, or the like. If by this course the swelling and other inflammatory symptoms abate, we may safely proceed to the use of mercury, which must be continued till the venereal virus is quite subdued.*

But if the bubo should, from the beginning, be attended with great heat, pain, and pulsation, it will be proper to promote its suppuration. For this purpose the patient may be allowed to use his ordinary diet, and to take now and then a glass of wine. Emollient cataplasms, consisting of bread and milk, softened with oil or fresh butter, may be applied to the part: and, in cold constitutions, where the tumor advances slowly, white lily-roots boiled, or sliced onions raw, and a sufficient quantity of yellow basilicon, may be added to the poultice.

When the tumor is ripe, which may be known by

* For the dispersion of a bubo, a number of leeches applied to the part affected will be found equally as efficacious as in the inflamed testicle.

conical figure, the softness of the skin, and a fluctation of matter plainly to be felt under the finger, it ay be opened either by caustic or the lancet, and terwards dressed with digestive ointment.

It sometimes however happens, that buboes can ither be dispersed nor brought to a suppuration, but main hard indolent tumors. In this case the indurated glands must be consumed by caustic; if they ould become schirrhous, they must be dissolved by e application of hemlock, both externally and interlly, as directed in the schirrhous testicle.

OF CHANCRES.

Chancres are superficial, callous, eating ulcers, hich may happen either with or without a gonorrhœa. ney are commonly seated upon the glans, and make eir appearance in the following manner: First, a mple arises, which soon becomes pointed at top, and filled with a whitish matter, inclining to yellow. his pimple is hot, and generally itches before it eaks; afterwards it degenerates into an obstinate cer, the bottom of which is usually covered with a cid mucus, and whose edges generally become hard d callous. Sometimes the first appearance resembles simple excoriation of the cuticle; which, however, if cause be venereal, soon becomes a true chancre.

A chancre is sometimes a primary affection, but it much oftener symptomatic, and is the mark of a nfirmed lues. Primary chancres discover themselves on after impure coition, and are generally seated in rts covered with a thin cuticle, as the lips, the nipes of women, the glans penis of men, &c.*

When a chancre appears soon after impure coition,

* When the venereal ulcers are seated in the lips, the infection may communicated by kissing. I have seen very obstinate venereal ers in the lips, which I have all the reason in the world to believe e communicated in this manner.

Nurses ought to beware of suckling infected children, or having ir breasts drawn by persons tainted with the venereal disease. is caution is peculiarly necessary for nurses who reside in the ighbourhood of great towns.

its treatment is nearly similar to that of the virulent gonorrhœa. The patient must observe the cooling regimen, lose a little blood, and take some gentle doses of salts and manna. The parts affected ought frequently to be bathed, or rather soaked, in warm milk and water, and if the inflammation be great, an emollient poultice or cataplasm may be applied to them. This course will, in most cases, be sufficient to abate the inflammation, and prepare the patient for the use of mercury.

Symptomatic chancres are commonly accompanied with ulcers in the throat, nocturnal pains, scurvy eruptions about the roots of the hair, and other symptoms of a confirmed lues. Though they may be seated in any of the parts mentioned above, they commonly appear upon the private parts, or the inside of the thigh. They are also less painful, but frequently much larger and harder, than primary chancres.

I have found it answer extremely well to sprinkle chancres twice a day with calomel: this will often produce a cure without any other application whatever. If the chancres are upon the glans, they may be washed with milk and water, and afterwards the calomel may be applied as above.

As their cure must depend upon that of the disease, of which they are only a symptom, we shall take no further notice of them till we come to treat of confirmed lues.

Thus we have related most of the symptoms which accompany or succeed a virulent gonorrhœa, and have also given a short view of the proper treatment; there are, however, several others which sometimes attend this disease; as a strangury, or obstruction of urine; *phymosis*, or *paraphymosis*, &c.

A strangury may be occasioned either by a spasmodic constriction, or an inflammation of the urethra and parts about the neck of the bladder. In the former case, the patient begins to void his urine with tolerable ease; but as soon as it touches the galled or inflamed urethra, a sudden constriction takes place, and the urine is voided by spurts, sometimes by drops only.

When the strangury is owing to an inflammation about ne neck of the bladder, there is a constant heat and neasiness of the part, a perpetual desire to make ater, while the patient can only render a few drops, id a troublesome tenesmus, or constant inclination go to stool.

When the strangury is owing to spasm, such medi-nes as tend to dilute and blunt the salts of the urine ill be proper. For this purpose, besides the common luting liquors, soft and cooling emulsions, sweetened ith the syrup of poppies, may be used. Should these ot have the desired effect, bleeding and emollient fo-entations will be necessary.

When the complaint is evidently owing to an inflam-ation about the neck of the bladder, bleeding must e more liberally performed, and repeated according the urgency of the symptoms. After bleeding, if the rangury still continues, soft clysters, with a proper uantity of laudanum in them, may be administered, id emollient fomentations applied to the region of the adder; at the same time the patient may take every ur hours, a tea-cup full of barley-water, to an Eng-h pint of which six ounces of the syrup of marsh-allows, four ounces of the oil of sweet almonds, and lf an ounce of nitre, may be added. If these reme-es should not relieve the complaint, and a total sup-ression of the urine should come on, bleeding must repeated, and the patient set in a warm bath up to e middle. It will be proper in this case to discon-nue the diuretics, and to draw off the water with the theter; but, as the patient is seldom able to bear its ing introduced, we would rather recommend the use mild bougies. These often lubricate the passage, d greatly facilitate the discharge of urine. When-er they begin to stimulate, or give any uneasiness, y may be withdrawn.

The phymosis is such a constriction of the prepuce er the glans, as hinders it from being drawn back-rds; the paraphymosis, on the contrary, is such a nstriction of the prepuce behind the glans, as hinders rom being brought forward.

The treatment of these symptoms is so nearly the same with that of the virulent gonorrhœa, that we have no occasion to enlarge upon it. In general, bleeding, purging, poultices, and emollient fomentations, are sufficient. Should these, however, fail of removing the stricture, and the parts be threatened with a mortification, fifteen or twenty grains of ipecacuanha, and one grain of emetic tartar, may be given for a vomit, and may be worked off with water or thin gruel.

It sometimes happens that, in spite of all endeavours to the contrary, the inflammation goes on, and symptoms of a beginning mortification appear. When this is the case, the prepuce must be scarified with a lancet, and, if necessary, divided, in order to prevent a strangulation, and set the imprisoned glans at liberty. We shall not describe the manner of performing this operation, as it ought to be done by a surgeon. When a mortification has taken place, it will be necessary, besides performing the above operations, to foment the parts frequently with cloths wrung out of a strong decoction of camomile-flowers and bark, and to give a drachm of bark in powder every two or three hours.

With regard to other distortions of the penis, the treatment is no way different from that of the gonorrhœa. When they prove very troublesome, the patient may take a few drops of laudanum at night, especially after the operation of a purgative through the day.

OF A CONFIRMED LUES.

We have hitherto treated of those affections in which the venereal poison is supposed to be confined chiefly to the particular part by which it was received, and shall next take a view of the lues in its confirmed state; that is, when the poison is actually received into the blood, and, circulating with it through every part of the body, mixes with the several secretions, and renders the whole habit tainted.

The symptoms of a confirmed lues are, buboes in the groin, pains in the head and joints, which are peculiarly troublesome in the night, or when the pa-

ent is warm in bed; scabs and scurfs in various parts f the body, especially on the head, of a yellowish olour, resembling a honeycomb; corroding ulcers in arious parts of the body, which generally begin about e throat, from whence they creep gradually, by the alate, towards the cartilages of the nose, which they estroy; excrescences or exostoses arise in the mid-le of the bones, and the spungy ends become brittle, nd break upon the least accident; at other times they e soft, and bend like wax; the conglobate glands ecome hard and callous, and form in the neck, arm-ts, groin, and mesentery, hard, moveable tumors like e king's-evil; tumors of different kinds are likewise rmed in the lymphatic vessels, tendons, ligaments, nd nerves, as the gummata, ganglia, nodes, tophs, &c. e eyes are affected with itching, pain, redness, and metimes with total blindness, and the ears with a sing-g noise, pain, and deafness, whilst their internal sub-nce is exulcerated and rendered carious: at length the animal, vital, and natural functions, are depra-d; the face becomes pale and livid, the body ema-ted, and unfit for motion; and the miserable patient ls into an atrophy or wasting consumption.

Women have symptoms peculiar to their sex; as ncers of the breast, a suppression or overflowing of menses, the whites, hysteric affections, an inflam-tion, abscess, schirrhus, gangrene, cancer or ulcer the womb; they are generally barren, or subject to ortion, or if they bring children into the world, they ve an universal erysipelas, are half rotten, and co-ed with ulcers.

Such is the catalogue of symptoms attending this adful disease in its confirmed state. Indeed, they seldom all to be met with in the same person, or the same time; so many of them however are ge-ally present as are sufficient to alarm the patient, l if he has reason to suspect the infection is lurking his body, he ought immediately to set about the ulsion of it, otherwise the most tragical conse-nces will ensue.

The only certain remedy hitherto known in Europe

for the cure of this disease, in its confirmed state, is *mercury*, which may be used in a great variety of forms, with nearly the same success. Some time ago it was reckoned impossible to cure a confirmed lues without a salivation. This method is now, however, pretty generally laid aside; and mercury is found to be as efficacious, or rather more so, in expelling the venereal poison, when administered in such a manner as not to run off by the salivary glands.

Though many are of opinion that the mercurial ointment is as efficacious as any other preparation of that mineral; yet experience has taught me to think otherwise. I have very often seen the most obstinate venereal cases, where great quantities of mercurial ointment had been used in vain, yield to the saline preparation of mercury. Nor am I singular in this opinion. Mr. Clare, surgeon, assures me, that, for some time past, he has employed in venereal cases a saline preparation of mercury with most happy success. This preparation, rubbed with a sufficient quantity of any mild powder, he applies in small portions to the tongue, where, with a gentle degree of friction, it is immediately absorbed, and produces its full effect upon the system, without doing the least injury to the stomach or bowels; a matter of the greatest importance in the application of this most active and powerful remedy.

It is impossible to ascertain either the exact quantity of medicines that must be taken, or the time they ought to be continued, in order to perform a cure. These will vary according to the constitution of the patient, the season of the year, the degree of infection, the time it has lodged in the body, &c. But though it is difficult to determine beforehand what quantity of mercury will, in the whole, be necessary to cure this distemper completely; yet it may be judged of after trial, from the abatement and ceasing of the symptoms. Commonly not less than two ounces of the strong mercurial ointment is sufficient, and not more than three or four ounces necessary.

The only chemical preparation of mercury which

e shall take notice of is the corrosive sublimate. his was some time ago brought into use for the venel disease in Germany by the illustrious Baron Van vieten, and was soon after introduced into Britain by e learned Sir John Pringle, at that time physician to e army. The method of giving it is as follows:

One grain of corrosive sublimate is dissolved in two nces of French brandy, or malt-spirits; and of this lution an ordinary table-spoonful, or the quantity of lf an ounce, is to be taken twice a day, to be continued as long as any symptoms of the disorder remain.

The sublimate may also be given in distilled water, any other liquor that the patient chooses. I commonly order ten grains to be dissolved in an ounce of e spirit of wine, for the conveniency of carriage, and t the patient take twenty or thirty drops of it night d morning, in half a glass of brandy or other irits.

To those whose stomach cannot bear the solution, e sublimate may be given in form of a pill.

Dissolve fifteen grains of the corrosive sublimate of ercury in two drachms of the saturated solution of ude sal-ammoniac, and make it into a paste, in a ass mortar, with a sufficient quantity of the crumb bread. This mass must be formed into one hundred d twenty pills. Four of these pills may be taken ice a day. As an alterant three.

Several woods, roots, and barks, have been recomended for curing the venereal disease, but none of em have been found, upon experience, to answer the gh encomiums which have been bestowed upon them. hough no one of these is to be depended upon alone, t when joined with mercury, some of them are found be very beneficial in promoting a cure. One of the st we yet know is sarsaparilla, which may be prered, and taken, in the following manner:

Take of fresh sarsaparilla-root, sliced and bruised, o ounces; shavings of guaiacum wood, one ounce. oil over a slow fire, in three quarts of water, to one; lding towards the end, half an ounce of sassafrasood, and three drachms of liquorice. Strain the

decoction. From a pint and half to two quarts may be taken in the course of a day.

The mezereon-root is likewise found to be a powerful assistant to the sublimate, or any other mercurial. It may either be used along with the sarsaparilla, or by itself.

Take of sarsaparilla, three ounces; liquorice and mezereon-root, of each half an ounce; shavings of guaiacum and sassafras-wood, of each one ounce; crude antimony, powdered, an ounce and half. Infuse these ingredients in eight pints of boiling water for twenty-four hours, then boil them till one-half of the water is consumed; afterwards strain the decoction. This may be used in the same manner as the preceding.

Those who choose to use the mezereon by itself, may boil an ounce of the fresh bark, taken from the root, in twelve English pints of water to eight, adding towards the end an ounce of liquorice. The dose of this is the same as of the decoction of sarsaparilla.

We have been told that the natives of America cure the venereal disease in every stage by a decoction of the root of a plant called the lobelia. It is used either fresh or dried; but we have no certain accounts with regard to the proportion. Sometimes they mix other roots with it, as those of the ranunculus, the ceanothus, &c. but whether these are designed to disguise or assist it, is doubtful. The patient takes a large draught of the decoction early in the morning, and continues to use it for his ordinary drink through the day.*

* Though we are still very much in the dark with regard to the method of curing this disease among the natives of America, yet it is generally affirmed that they do cure it with speed, safety, and success, and that without the least knowledge of mercury. Hence it becomes an object of considerable importance to discover their method of cure. This might surely be done by making trials of the various plants which are found in those parts, and particularly of such of the natives as are known to make use of it. All people in a rude state take their medicines chiefly from the vegetable kingdom, and are often possessed of valuable secrets with regard to the virtues of plants, of which more enlightened nations are ignorant. Indeed, we make no

Many other roots and woods might be mentioned, ich have been extolled for curing the venereal dis- e, as the china-root, the roots of soap-wort, bur- ck, &c. as also the wood of guaiacum and sassafras: t as none of them have been found to possess virtues perior to those already mentioned, we shall, for the ke of brevity, pass them over, and shall conclude our servations on this disease, with a few general remarks ncerning the proper management of the patient, and nature of the infection.

GENERAL OBSERVATIONS.

The condition of the patient ought always to be nsidered, previous to his entering upon a course of rcury in any form. It would be equally rash and ngerous to administer mercury to a person labour- under any violent acute disease, as a putrid fever, urisy, peripneumony, or the like. It would like- e be dangerous in some chronic cases; as slow tic fever, or the last stage of a consumption. Some- es, however, these diseases proceed from a con- ned lues; in which case it will be necessary to give rcury. In chronic diseases of a less dangerous na- e, as the asthma, the gravel, and such like, mercury, ecessary, may be safely administered. If the pa- t's strength has been greatly exhausted by sick- s, labour, abstinence, or any other cause, the use mercury must be postponed, till by time, rest, and ourishing diet, it can be sufficiently restored.

Mercury ought not to be administered to women ring the menstrual flux, or when the period is near nand. Neither should it be given in the last stage of gnancy. If, however, the woman be not near the e of her delivery, and circumstances render it ne- sary, mercury may be given, but in smaller doses, l at greater intervals than usual; with these pre-

t but some plants of our own growth, were proper pains taken to over them, would be found as efficacious in curing the venereal dis- as those of America. It must, however, be remembered, that t will cure the venereal disease in one country, will not always be d to have equal success in another.

cautions, both the mother and child may be cured at the same time, if not, the disorder will at least be kept from growing worse, till the woman be brought to bed, and sufficiently recovered, when a more effectual method may be pursued, which, if she suckles her child, will in all probability be sufficient for the cure of both.

Mercury ought always to be administered to infants with the greatest caution. Their tender condition unfits them for supporting a salivation, and makes it necessary to administer even the mildest preparations of mercury to them with a sparing hand. A similar conduct is recommended in the treatment of old persons, who have the misfortune to labour under a confirmed lues. No doubt the infirmities of age must render people less able to undergo the fatigues of a salivation; but this, as was formerly observed, is never necessary; besides, we have generally found that mercury had much less effect upon very old persons, than on those who were younger.

Hysteric and hypochondriac persons, and such as are subject to an habitual diarrhœa or dysentery, or to frequent and violent attacks of the epilepsy, or who are afflicted with the scrophula or the scurvy, ought to be cautious in the use of mercury. Where any one of these disorders prevails, it ought either, if possible, to be cured, or at least palliated, before the patient enters upon a course of mercury. When this cannot be done, the mercury must be administered in smaller doses, and at longer intervals, than usual.

The most proper seasons for entering upon a course of mercury, are the spring and autumn, when the air is of a moderate warmth. If the circumstances of the case, however, will not admit of delay, we must not defer the cure on account of the season, but must administer the mercury; taking care at the same time to keep the patient's chamber warmer or cooler, according as the season of the year requires.

The next thing to be considered is the preparation necessary to be observed before we proceed to administer a course of mercury. Some lay great stress upon

s circumstance, observing, that by previously relax-
; the vessels, and correcting any disorder which may
open to prevail in the blood, not only the mercury
l be disposed to act more kindly, but many other
onveniences will be prevented.

We have already recommended bleeding and gentle
rges, previous to the administration of mercury, and
ll only now add, that these are always to be re-
ated according to the age, strength, constitution,
l other circumstances of the patient. Afterwards,
it can be conveniently done, the patient ought to
the once or twice a day, for a few days, in luke-
rm water. His diet, in the mean time, must be
ht, moist, and cooling. Wine, and all heating
nors, also violent bodily exercise, and all great
ertions of the mind, are carefully to be avoided.

A proper regimen is likewise to be observed by such
are under a course of mercury. Inattention to this
t only endangers the patient's life, but often also
appoints him of a cure. A much smaller quantity
mercury will be sufficient for the cure of a person
o lives low, keeps warm, and avoids all manner of
cess, than of one who cannot endure to put the
allest restraint upon his appetites; indeed, it but
ely happens that such are thoroughly cured.

There is hardly any thing of more importance, either
preventing or removing venereal infection, than
anliness. By an early attention to this, the infection
ght often be prevented from entering the body; and
ere it has already taken place, its effects may be
atly mitigated. The moment any person has rea-
n to suspect that he has received the infection he
ght to wash the parts with water and spirits, sweet-
, or milk and water; a small quantity of the last may
ewise be injected up the urethra, if it can be conve-
ntly done. Whether the disease at first took its
e from dirtiness,* is hard to say, but wherever that

* I have not only often seen a recent infection carried off in a few
s by means of cleanliness, *viz.* bathing, fomentations, injections,
, but have likewise found it of the greatest advantage in the more
anced stages of the disease. Of this I had lately a very remarkable

prevails, the infection is found in its greatest degree of virulence, which gives ground to believe that a strict attention to cleanliness would go far towards extirpating it altogether.

When the venereal disease has been neglected, or improperly treated, it often becomes a disorder of the habit. In this case, the cure must be attempted by restoratives, as a milk-diet, the decoction of sarsaparilla, and such like, to which mercury may be occasionally added. It is a common practice in North Britain to send such patients to drink goat-whey. This is a very proper plan, provided the infection has been totally eradicated beforehand; but, when that is not the case, and the patient trusts to the whey for finishing his cure, he will often be disappointed. I have frequently known the disease return with all its virulence after a course of goat-whey, even when that course had been thought quite sufficient for completing the cure.

One of the most unfortunate circumstances attending patients in this disease is, the necessity they are often laid under of being soon well. This induces them to take medicine too fast, and leave it off too soon. A few grains more of medicine, or a few days longer confinement, would often be sufficient to perfect the cure; whereas, by neglect of these, a small degree of virulence is still left in the humours, which gradually vitiates, and at length contaminates the whole mass. To avoid this, we would advise, that the patient should never leave off taking medicine immediately upon the disappearing of the symptoms, but continue

instance, in a man whose penis was almost wholly consumed by venereal ulcers; the matter had been allowed to continue on the sores, without any care having been taken to clean them, till, notwithstanding the use of mercury and other medicines, it had produced the effects above mentioned. I ordered warm milk and water to be injected three or four times a day into all the sinuous ulcers, in order to wash out the matter; after which they were stuffed with dry lint to absorb the fresh matter as it was generated. The patient at the same time took every day half a grain of the corrosive sublimate of mercury, dissolved in an ounce of brandy, and drank an English quart of the decoction of sarsaparilla. By this treatment, in about six weeks, he was perfectly cured; and, what was very remarkable, a part of the penis was actually regenerated.

or some time after, gradually lessening the quantity, there is sufficient ground to believe that the disease ntirely eradicated.

t is not only difficult, but absolutely impossible, to ertain the exact degree of virulence that may attend disease; for which reason it will be a much safer e to continue the use of medicine too long, than to ve it off too soon. This seems to be the leading xim of a modern practitioner of some note for the ereal disease, who always orders his patient to per- n a quarantine of at least forty days, during which e he takes forty bottles of, I suppose, a strong de- tion of sarsaparilla, or some anti-venereal simple. oever takes this method, and adds a sufficient quan- of corrosive sublimate, or some other active prepa- on of mercury to the decoction, will seldom fail to e a confirmed lues.

t is peculiarly unfortunate for the cure of this dis- e, that not one in ten of those who contract it, are er able or willing to submit to a proper plan of re- en. The patient is willing to take medicine; but must follow his business, and, to prevent suspicion, st eat and drink like the rest of the family. This he true source of nine-tenths of all the mischief ing from the venereal disease. I never knew the e attended with any great difficulty or danger re the patient strictly followed the physician's ice; but a volume would not be sufficient to point the dreadful consequences which proceed from opposite conduct. Schirrhous testicles, ulcerous throats, madness, consumptions, carious bones, a rotten progeny, are a few of the evils derived n this source.

here is a species of false reasoning, with regard to disease, which proves fatal to many. A person of d constitution contracts a slight degree of the dis- r; he gets well without taking any great care, or g much medicine, and hence concludes that this always be the case. The next time the disease rs, though ten times more virulent, he pursues same course, and his constitution is ruined. In-

deed, the different degrees of virulence in the small-pox are not greater than in this disease, though, as the learned Sydenham observes, in some cases the most skilful physicians cannot cure, and in others the most ignorant old woman cannot kill the patient in that disorder. Though a good constitution is always in favour of the patient, yet too great a stress may be laid upon it. It does not appear from observation that the most robust constitution is able to overcome the virulence of the venereal contagion, after it has got into the habit. In this case a proper course of medicine is always indispensably necessary.

Although it is impossible, on account of the different degrees of virulence, &c. to lay down fixed and certain rules for the cure of this disease, yet the following general plan will always be found safe, and often successful, *viz.* to bleed and administer gentle purges with diuretics, during the inflammatory state, and, as soon as the symptoms of inflammation are abated, to administer mercury, in any form that may be most agreeable to the patient. The same medicine, assisted by the decoction of sarsaparilla, and a proper regimen, will not only secure the constitution against the further progress of a confirmed pox, but will generally perform a complete cure.

Although the venereal disease may not, in some degree, be a proper subject of discussion for regular families and the nursery, yet there are many individuals to whom the observations I have made may be of service in this complaint. There is no disease which opens so wide a field for the quack, none in which he so completely picks the pocket, and ruins the constitution. Mercury is the chief ingredient of all these nostrums, and by mercury every apothecary's boy pretends to cure the venereal disease. In one species of the disorder, mercury is a certain cure, but it requires discrimination; and a medicine of a nature so very active cannot be administered with too much care. Those who value their health or their life, will not suffer themselves to be, in a matter so serious, the dupes of ignorance or imposture.

Of Vomiting.

When vomiting is the effect of poisons taken into e stomach, it requires the same treatment as recom-ended for poisons.

Vomiting is a very common attendant on pregnancy; d the most healthy women, as well as the weak and licate, are equally subject to it: the symptoms re-ire, however, different treatment in those opposite ates. When it is attended with *fulness* of the vessels, d determination of blood to the brain (evinced by in and giddiness in the head, flushing in the face, d bleeding at the nose), blood-letting, with gentle rgatives, as the Epsom water, taken every morning, d a spare diet, will afford relief; but when it occurs a delicate woman, and is attended with symptoms debility, such as languor and profuse perspirations, nutritious but light diet, with a moderate use of Port ne, will prove most beneficial. Two table-spoonfuls the following mixture may likewise be taken two or ree times a day:

Take of infusion of roses, seven ounces; Epsom lt, two drachms; compound tincture of cardamom-eds, six drachms. Mix.

Moderate exercise will, in both cases, be necessary. netics should not be administered without the sanc-n of a skilful practitioner, as their injudicious exhi-tion may produce abortion. When vomiting arises m *weakness*, or *irritability* of the stomach, or acidity, should be considered as a symptom of indigestion, d be treated as such. When the matter thrown up bilious, the neutral salts, and the diluted vitriolic id, will be proper, to which a few drops of laudanum ay be added in case of much straining. When vo-iting is the consequence of hard drinking, diluents, tea and coffee, a dose of magnesia, or salt of worm-ood, in mint-tea, will prove the most efficacious. hen the cause is not evident, the saline draughts, in state of effervescence, with the occasional use of nall doses of rhubarb and laudanum, may be em-

ployed, and an anodyne plaister applied to the pit of the stomach.

Vomiting is often attendant an organic disease of the stomach, schirrhosity of the pylorus, or ulceration of the inner coat of the stomach, when the matter brought up is generally very slimy; in such cases, two or three grains of extract of poppies, or one of purified opium, taken twice a day, with linseed-tea and lime-water, will afford relief.

Vomiting is generally a symptomatic affection, when the cure will of course depend on the nature of the primary disease.

The vomiting of children frequently arises from their being overfed, when the ejected matter is for the most part sour. A little magnesia, or prepared natron, in mint-water, will, in such cases, prove beneficial. If the stools be green, or of a clay colour, a gentle emetic dose of ipecacuan powder will be necessary.

Of Vomiting of Blood.

When blood is discharged into the stomach, and brought up by vomiting, it is thus termed; and when it proceeds from the lungs, although its expulsion be assisted by vomiting, it is termed hœmoptoe, or *spitting* of blood. In describing the latter affection, (page 453,) I noticed in what manner the source of the blood thrown out from the mouth might be ascertained. When the blood is brought up without coughing, if of a black and grumous appearance, and mixed with the contents of the stomach, there can be no doubt that it proceeds from the stomach.

Causes.—It generally arises from the suppression of accustomed evacuations, as the menses or piles.

Treatment.—If the patient be of a plethoric habit of body, the loss of eight or ten ounces of blood from the arm will be necessary; after which, three table-spoonfuls of the following mixture should be taken every four hours:—

Take of red rose leaves, dried, two drachms; infuse half a pint of boiling water for three hours; then rain, and add diluted vitriolic acid, two drachms; ıcture of rhatany-root, half an ounce. Mix.

It will likewise be proper to produce a determina-ɔn of blood to the skin, by small doses of ipecacuan ɔwder, combined with opium, as two grains of the rmer with half a grain of the latter, or eight drops of udanum. With the same view, the feet should be ıt into warm water for ten minutes. If these means il to check the bleeding, six or eight grains of alum, powder, may be added to each dose of the mixture, ıd a blister applied to the pit of the stomach.

Thin gruel will be sufficient both for food and beve-ge, which should be taken cold. If it arise from ppression or retention of the menses, after the dis-ıarge has ceased for some days, the remedies already commended for these complaints should be employ-l, to produce a proper determination to the womb. *e Green Sickness*, and *Suppression of the Menses.*

When the cause is a suppression of the piles, the casional use of aloetic purges, as the compound ɔlocynth pill, or a clyster of gruel, with a drachm soccotrine aloes, and a table-spoonful of salt, will ford relief, by reproducing the piles.

Of the Water-brash.

This disease is very prevalent in Scotland and Ire-nd, but more rarely occurs in England. It chiefly ɔpears among the lower orders of people, and more ɔmmonly at middle age, though sometimes old people e subject to it. It affects females oftener than males, ıd of married women (unless during pregnancy) the ırren are most subject to it. It consists in a dis-ıarge of clear water by vomiting or eructations, at-nded with a burning heat about the pit of the sto-ach. It generally comes on by fits, which are most equent when the stomach is empty, as in the morning

and forenoon. The pain is considerably abated by eructations and vomiting, but it does not entirely terminate for some time.

Causes.—This disease arises from morbid irritation of the pancreas, generally produced by the intemperate use of ardent spirits, particularly whisky. Passions of the mind, and cold in the lower extremities, are often exciting causes.

Treatment.—The spasms of the stomach may be relieved by laudanum and ether, the dose of which must be proportioned and repeated according to the violence of the fit: afterwards the use of the aromatic tincture of rhatany-root, or compound tincture of camomile and ginger, (if costiveness be avoided,) with a generous diet, and abstinence from spirituous or fermented liquors, will effect a cure.

Warts.

Warts are organized bodies, and have probably a kind of parasitical life, like the fungus of a tree. Whatever proves destructive to the life of parasitical animals, will, by frequent application, destroy warts—such as the muriated tincture of steel, or solution of arsenic.

When a wart has a narrow root, it may be easily removed by ligature; but when the basis is broad, it may be destroyed by rubbing the surface every second morning with a little lunar caustic, till it entirely disappears.

The influence of the imagination in destroying warts is very extraordinary, many instances having occurred, it is said, of their gradually disappearing after the use of a charm, which could operate only on the mind. It has been affirmed, that even when the person had no confidence in the mystic remedy, it has succeeded. The irritation which produces these excrescences may be prevented by a tranquil mind.

Of Watery Head.

This disease is almost peculiar to infants, and efly those of a scrophulous or rickety habit. It dom occurs after the fourteenth year.

It commences with slight pain in the head, gerally across the brow: as the effusion of water inases, the child becomes affected with nausea, sicks, starting in the sleep, screaming, and other disers of the animal functions, as convulsions, &c. hout any apparent cause; at length the brain benes so compressed as to produce dilatation of the pils of the eyes, a variable pulse, with evident stupor. s commonly fatal.

Causes.—The effusion of serum in the ventricles of brain is generally considered to be the consence of inflammation, but it is more probably the ct of sub-irritation. The capacity of the skull ng adapted to the brain, an enlargement of the ll, which takes place in a rickety subject, would productive of an effusion of serum, or what is vully termed a watery head. An effusion of serum in *tunica vaginalis*, producing *hydrocele*, or, in the ca- of the abdomen, occasioning a dropsy called *ascites*, y with equal propriety be attributed to inflammaon, as an effusion of serum in the ventricles of the in.

Treatment.—This disease is so gradual in its pross, that its nature is seldom evident till the effusion serum is so considerable as to render all efforts to duce its absorption ineffectual. The most active ns must be employed to stimulate the absorbent sels of the brain, for the removal of the accumulated m; for this purpose, a perpetual blister over the lp, gentle electric shocks through the head, and exhibition of mercury, are the most powerful edies.

One grain of calomel may be given to a child five six years old, in a little jelly, three times a day; or cruple of the strong mercurial ointment may be

rubbed on the inside of the thigh or arm twice a day, till it enter the skin. Some practitioners recommend the ointment to be rubbed over the blister, for the purpose of being more speedily taken up into the system; and if the patient can bear it, it is certainly to be preferred. Five drops of the muriated tincture of steel may likewise be given in a little water two or three times a day, and the strength of the system supported by beef-tea, arrow-root, and a little wine.

In every other part of the body but the brain, absorbent vessels may be demonstrated, but in the brain they cannot be discovered by the most minute examination; but as effusions of blood in the brain are absorbed, there can be no doubt of their existence in this organ. Their being less abundant than in any other part of the body, is probably the reason that the disease is so often fatal.

Of Wen.

This disease is an enlargement of the thyroid gland, situated on the front of the neck, in consequence of disease or debility of the absorbent vessels, or increased action of the secerning vessels of the part. Several remedies have been suggested for the cure of this disease, of which the burnt sponge has answered best. Lozenges of this medicine have been much recommended by Dr. Cheston, an eminent physician in Gloucester, and other respectable physicians have found this form to answer best; the advantages of which are attributed to its gradual solution in the mouth. Rubbing the surface of the tumor every night with salt, by rousing the action of the absorbent vessels, is a plausible remedy, and has succeeded in removing glandular accumulations of considerable magnitude. The hand of an executed criminal, by producing a considerable sensation on the mind, has, on the same principle, succeeded in some instances. A dead toad hung round the neck is in some countries a favourite remedy.

A plaister, made of soft soap and quick lime, may applied over the wen. It may be spread on thin ther, and changed every two or three days.

In some cases, the source of its nourishment may nearly cut off, by applying ligatures to the principal teries that supply it with blood, which, when the ssels are superficial (as is often the case), is neither ainful nor difficult operation.

There are several species of tumors that form in different parts of the human body, which derive their mes from the nature of their substance. I some ne since, says Dr. Reece, removed one from the ck of a carpenter (Mr. Thomas), at Abbey Tintern, Monmouthshire, which weighed, after it was freed m blood, sixteen pounds twelve ounces. It had en gradually growing nearly twenty years, and had terly, from its magnitude and weight, become so oublesome as to prevent him from following his occution, which he has since pursued with greater ease an he had done for many years. The removal of a n, when situated on the anterior part of the neck, the knife, is, on account of the great blood-vessels nnected with it, a dangerous operation.

Of Whites, or Fluor Albus.

This disease is a slimy discharge of matter from the gina, of different colours, and consistences; it is nerally of a pale or whitish colour, but varies in pearance, consistence, and quantity, in different rsons. It generally proceeds from the vagina, but metimes from the womb itself. Women of an erypelatous habit, generally termed scorbutic, are most bject to it, and in them it proves very obstinate. omen who abound with serum, with lax fibres, or the decline of life, and girls at the approach of the enses, are most subject to this disorder, though it metimes occurs from infancy to old age.

Causes.—The immediate cause of a fluor albus is,

in general, debility of the vessels from which the menstrual discharges flow, or a retarded circulation through them. The remote causes are, cold moist air, a sedentary life, a poor diet, excessive menstrual discharges, abortions, and every circumstance which weakens the constitution in general, or these vessels in particular.

TREATMENT.—Cold bathing, or the local application of cold water, by means of a *bidet*, is a very important remedy for this disease, and should be used every morning, provided the patient be free from cough or difficulty of breathing.

Take of extract of bark, two drachms; carbonate of iron (formerly rust of iron), four scruples; simple syrup, sufficient to make into a mass for pills. Divide the whole into thirty-six pills; three of which may be taken daily.

If the discharge continue after the due employment of these means, an astringent lotion may be made use of with advantage, as the following:—

Take of the pomegranate-rind, bruised, three drachms; boil in a quart of water to a pint and half; then strain, and add alum, a drachm and half. To be injected by means of a female syringe.

The due employment of these remedies, with moderate exercise and a nutritious diet, will generally succeed in curing the disease.

If the stools are of a pale clay or very dark colour, or the patient be subject to erysipelas, or eruption of the skin, one grain of calomel should be taken every other night for about ten days or a fortnight.

When it arises from relaxation, these medicines, with the use of the astringent injection twice a day, I have never known to fail in the most obstinate cases.

When fluor albus occurs in a person of a robust and sanguine habit, it may be considered of an inflammatory nature; in which case, instead of tonic medicines above recommended, the patient should take every, or every other, morning, two drachms of Epsom salt; and ten grains of nitre powder, with fifteen of gum-arabic powder, in a glass of barley-water or almond-emulsion, three times a day; which, with a low diet,

e from all kinds of stimulants, will succeed in cur- it. To these remedies, the application of cold ter, by means of the *bidet*, will prove a powerful xiliary.

f the Epsom salt should occasion more than one or motions in the course of twenty-four hours, the e should be diminished, or taken less frequently.

When the discharge is of an *ichorous* nature, and of *ark* or *yellowish* colour, and attended with *pain* in region of the womb, or with irritation, burning t, difficulty, or heat of urine, troublesome itching, ense of bearing down, and a frequent inclination to to stool; pains on the approach, or during the time, menstruation; and particularly if pieces of coagu- d blood, generally termed *clots*, are discharged; ne *organic* disease of the womb may be suspected, ecially if they occur about the time of the cessation the menstrual discharge; in which case the patient uld lose no time in availing herself of the advice of experienced surgeon.

The diet must depend on the general health of the ient. If she be weakly, and of a delicate consti- on, it should be nourishing and easy of digestion, h as vegetable and animal jellies, with a small tion of meat; a little good Port or white wine may be allowed, but water should be adopted in lieu malt-liquor: and if the complaint be attended with ch irritation or pain on making water, it will be isable to avoid pepper and much salt, but not erwise. Warm diluent liquors, as tea and coffee, l the use of spirituous liquors, are very improper, l will certainly counteract the effects of medicine.

Of White Swelling.

This disease is the consequence of a tender struc- e or debility of the absorbent vessels of the liga- nts of the joints, which constitutes what is termed rophula. (*See Scrophula, page* 401.) It is often

brought on by accidents, as bruises and strains, and sometimes by frequent attacks of rheumatism. The knee, ancle, and elbow joints, are generally the seats of this disease. The *scrophulous* white swelling begins with acute pain in the interior part of the joint, which is sooner or later succeeded by a gradual enlargement of the ends of the bones forming the joint, with a distention of the veins of the skin surrounding it.

Treatment.—The object of topical management is to prevent the formation of matter, by the application of leeches or cupping, which should be repeated every, or every other, day, according to the urgency of the case; the whole joint should then be kept continually wet and cool with the following lotion, by means of folds of old linen:

Take of crude sal ammoniac, half an ounce; dissolve in spring water, one pint and half; then add vinegar, half a pint.

Two drachms of either Rochelle or Epsom salt should be taken every morning, and the medicine already recommended for the king's evil, to strengthen or invigorate the absorbent system, and improve the general health.

When the part is in a quiet state, *i. e.* free from pain, and morbid degree of heat, friction with the hand is often very beneficial, by rousing the action of the absorbent vessels, and thereby producing a mutation of the deranged structure. The friction should be continued for two or three hours twice a day, with a little hair-powder, to prevent irritation of the skin. If the friction produce pain or inflammation, it should be discontinued, and a small blister applied to each side of the joint, the discharge of which should be kept up by dressing them every morning with savin-ointment; for which purpose, the thin skin of the blister should be entirely removed. The limb should be kept perfectly quiet, and, when free from pain and inflammation, the joint may be gently moved once a day, to prevent adhesion and consequent stiffness. By the external irritation and discharge of blisters, continued for a length of time, with the constitutional

eatment recommended for scrophula, many limbs ve been saved which by a hasty surgeon would ve been condemned to the knife. When the blisters e healed up, the plaister of gum-ammoniac and cicuta emlock) may be applied with advantage; and if ere be a disposition on the part to a recurrence of the ischief, an issue will also be necessary. The same cal treatment is proper for the enlargement of a int from rheumatism, which, if attended with fever, quires the constitutional remedies recommended for ute rheumatism.

Of Whitloe, or Felon.

This disease is an inflammatory swelling of the end a finger, the pain and obstinacy of which depend the part attacked: if the skin be only affected, the in is trifling, and after the effused fluid is discharged, soon heals, without endangering the nail; but if tuated in the membrane beneath the skin, which is nerally its seat, the symptoms are more violent; and the membrane covering the bone be affected, the in- mmation often extends to the hand, and the pain the arm. The lymphatic vessels, and the gland in e arm-pit, are also often inflamed; in this latter se, if the disease advance to suppuration, the bone generally rendered carious.

Causes.—It sometimes occurs from external vio- nce, particularly from punctures and bruises; but happens more frequently without any evident excit- g cause, in which case it probably indicates a bad bit of body.

Treatment.—As the matter which forms in this sease is generally of that acrid nature as to corrode e soft parts, and even the bone, it will, in all cases, advisable to prevent suppuration by applying four five leeches, and encouraging the bleeding by im- ersing the hand in warm water after the removal of e leeches: when the bleeding has ceased, the finger

should be wrapped up in soft linen, and frequently moistened with spirit of wine. An opening mixture, will also be necessary; and if the patient be of a plethoric habit of body, or the arm much inflamed, six or eight ounces of blood should be taken from the arm. If these means should fail of dispersing it, an incision should be made into the part, nearly to the bone, which will effectually prevent suppuration, and thus preserve the nail and the bone.

When an effusion of serum has taken place, it should be let out as soon as possible, to prevent its increasing the internal mischief, particularly if deep-seated. A poultice may then be applied, which, with the occasional use of a little brandy, will effect a cure. But so many untoward circumstances happen in those cases, such as caries of the bone, the formation of fungus under the nail, &c. that it will always be advisable to apply to an experienced surgeon, whose timely assistance will not only prevent much mischief, but save the finger.

Of Worms.

The species of worms that are most prevalent in the human body are three, viz. *ascarides*, or small round and short worms, which chiefly occupy the lower intestine; the *teres*, or round and long worms,*

* The round long worm being generally considered to be of the same nature as the earth-worm, it may be amusing to notice in what their difference consists. On examining their outward appearance with attention, the human worm will be found more pointed at both extremities, than the common earth-worm. The mouth of the human worm consists of three rounded projections, with an intermediate cavity; whereas the mouth of the earth-worm consists of a longitudinal fissure, situated on the under surface of a small round head. Upon the under surface too of the human worm there is a large semi-lunar fold of skin, into which the head retreats, and out of which it is elongated, which is entirely wanting in the teres. The anus of the human worm is situated on the under surface, a little way from its posterior extremity, and appears like a transverse curved fissure. The anus of the earth-worm is an oval aperture at the very extremity of the worm.

nich are generally seated in the small intestines and omach; and the *tænia*, or tape-worm, which for the ost part possesses the whole tract of the intestinal nal.

Symptoms.—The symptoms denoting the existence worms are common to the different species, *viz.* digestion, with a variable appetite; foul tongue; fensive breath; hard, full, and tense belly, with casional gripings and pains about the navel; heat d itching sensation in the rectum and about the us; the eyes heavy and dull; itching of the nose; ort dry cough; grinding of the teeth;* and starting ring sleep, attended often with a slow fever.

Causes.—As worms are generally found only in rsons of weak digestive organs, indigestion may be ticed, at least as favouring their generation. There nothing, however, in the economy of animals more volved in mystery than the generation of these para- tical animals. Were they found to live in situations

ne outward covering or skin of the human worm is less fleshy, and t so strongly marked by transverse rugæ, as the earth-worm. In e latter there is often to be seen a broad white band surrounding e body of the worm; but in the teres this is entirely wanting. On ch side of the human worm there is a longitudinal line well marked; the other worm there are three such lines upon the upper half of its rface, but very faintly marked, so as to be hardly discernible. The man worm has nothing resembling feet, whereas the earth-worm is on its under surface and towards its posterior extremity a double w of processes, on each side, very evident to the eye and finger, hich manifestly serve the purpose of feet on the locomotion of the imal. The internal structure of both animals is also extremely dif- rent: in the human worm there is an intestinal canal, nearly uniform d smooth in its appearance, which passes from one extremity of the orm to the other. In the earth-worm there is a large and complex omach, consisting of three cavities, and the intestinal canal is like- ise larger and more formed into sacculi than the former: the parts bservient to generation are very different in both; there being in e human worm a distinction of sex, the parts being different in the ale and female, whereas the common earth-worm is an hermaphrodite. he human worm depending upon the body it inhabits for a supply of eat, has no powers within itself for its production, and consequently expelled from the body immediately on parting with its heat.

* This strong involuntary action of the muscles of the lower jaw a proof how much the muscular system is affected by irritation in ne stomach and bowels.

out of the bodies of living animals, one might readily suppose that their eggs were taken into the body with the food or drink, and there gradually evolved into animals; this, however, is not the case; they are evidently incapable of existing for any length of time in any situation, except within a living animal body, which appears to be the proper place for their growth and residence. We might, therefore, be led to another supposition, *viz.* that they are really formed from the matter contained in the intestines, which previously had no regular organization; but this idea is widely different to all analogy in the production of animals. The origin, therefore, of such animals is a subject of much obscurity. That they are not produced by eggs of animals taken with the food, is not only obvious from their being found in the liver and brain, but from the frequency of another kind of animal, so commonly generated in the kidneys, brain, and liver, named *hydatids.**

TREATMENT.—The indications of cure are, first, to clear the stomach and intestines of redundant slime, and afterwards to strengthen the stomach and bowels, so as to destroy the disposition to their generation.

Though numberless medicines are extolled for expelling worms,† yet no disease more frequently baffles the physician's skill. In general, the most proper medicines for their expulsion are strong purgatives: and, to prevent their breeding, stomachic bitters, with now and then a glass of good wine.

The best purge for an adult is jalap and calomel, Fifteen or twenty grains of the former, with four or

* Persons who wish to consider those animals more minutely, will find an excellent account of them, published by Dr. John Hunter, in the Medical and Chirurgical Transactions, p. 34.

† That worms exist in the human body there can be no doubt, and that they must sometimes be considered as a disease is equally certain; but this is not the case so often as people imagine. The idea that worms occasion many diseases, gives an opportunity to the professed worm-doctors, of imposing on the credulity of mankind, and doing much mischief. They find worms in every case, and liberally throw in their antidotes, which generally consist of strong drastic purges. I have known these given in delicate constitutions, to the destruction of the patient, where there was not the least symptom of worms.

e of the latter, mixed in syrup, may be taken early the morning for a dose. It will be proper, that the tient keep the house all day, and drink nothing cold. e dose may be repeated once or twice a week, for ortnight or three weeks. On the intermediate days patient may take a drachm of the powder of tin, ice or thrice a day, mixed with syrup, honey, or acle.

Those who do not choose to take calomel, may ke use of the bitter purgatives; as aloes, hiera-ra, tincture of senna and rhubarb, &c.

Oily medicines are sometimes found beneficial for pelling worms.

Oily clysters, sweetened with sugar or honey, are y efficacious in bringing away the short round rms called *ascarides*, and likewise the *teres*.

The Harrowgate water is an excellent medicine for pelling worms, especially the *ascarides*. As this ter is impregnated with sulphur, we may hence er, that sulphur alone must be a good medicine in s case; which is found to be a fact. Many practi-ners give flowers of sulphur in very large doses, and th great success. It should be made into an elec-ury with honey or treacle, and taken in such quan-y as to purge the patient.

Where Harrowgate water cannot be obtained, sea-ter may be used, which is far from being a contempti-medicine in this case. If sea-water cannot be had, mmon salt dissolved in water may be drank. I have en seen this used by country nurses with very good ect. Some flowers of sulphur may be taken over-ght, and the salt-water in the morning.

Lime-water is likewise good for this purpose, or a ble-spoonful of the chalybeate wine taken twice or ice a day. Infusions or decoctions of bitter herbs y likewise be drank; as the infusion of tansy, wa--trefoil, camomile-flowers, tops of wormwood, the ser centaury, &c.

The directions stated above are for adults; but the edicines for children must be more palatable, and the ses less. For a child of four or five years old, six

grains of rhubarb, five of jalap, and one of calomel, may be mixed in a spoonful of syrup or honey, and given in the morning. The child should keep the house all day, and take nothing cold. This dose may be repeated twice a week for three or four weeks. On the intermediate days, the child may take a scruple of powdered tin, and ten grains of Ethiop's mineral, in a spoonful of treacle, twice a day. This dose must be increased or diminished according to the age of the patient.

Bisset says, the great bastard black hellebore, or *bear's-foot*, is a most powerful vermifuge for the long round worms. He orders the decoction of about a drachm of the green leaves, or about fifteen grains of the dried leaves in powder, for a dose to a child between four and seven years of age. This dose is to be repeated two or three times. He adds, that the green leaves made into a syrup with coarse sugar, is almost the only medicine he has used for round worms for three years past. Before pressing out the juice, he moistens the bruised leaves with vinegar, which corrects the medicine. The dose is a tea-spoonful at bed-time, and one or two next morning.

I have frequently known those big bellies, which in children are commonly reckoned a sign of worms, quite removed by giving them white soap in their pottage, or other food. Tansy, garlic, and rue, are all good against worms, and may be used various ways. We might here mention many other plants, both for external and internal use, but think the powder of tin, with Ethiop's mineral, and the purges of rhubarb and calomel, are more to be depended on.

In domestic medicine, an infusion of Indian pink has been generally employed for the destruction of worms in children, and often with success. The giddiness, stupor, dimness of sight, redness and pain in the eyes, that sometimes affect the patient during the use of this medicine, prove that it should be administered with caution, and not till after safer vermifuges have been tried in vain. The decoction of quicksilver is also a popular remedy, but I conceive equally unsafe.

Powdered rust of iron is a very excellent vermifuge edicine, and where the complexion of the patient is le, or the system weakly, is preferable to any other; t when the countenance is florid, and the habit evintly plethoric, it is not so proper as the opening edicines mentioned above. The powdered rust of n is recommended by Dr. Rush to be given from e to thirty grains, in a little currant-jelly or brown gar, for children between one and ten years old. Of all the worm-medicines that I have administered," serves this eminent physician, "I know none more fe and certain than this simple preparation of iron. ever it fails of success, it is because it is given in o small a dose." Taught by an old sea-captain, who as cured of tape-worm by this medicine, Dr. Rush s given to adults from two drachms to half an ounce it every morning for three or four days, not only with fety, but with uniform success;* the addition of ten ains of granulated tin has been found to increase its rmifuge powers.

The hairy down which covers the pods of cowage, ade into an electuary with treacle, is much recomended by Mr. Chamberlayne, surgeon in London. he electuary, in the dose of a tea-spoonful, is said to perfectly safe, and that two or three doses generally ffice.

The common male fern-root has been much extolled a certain remedy for the tape-worm. The following rections are given for its use:—"Two or three achms of the powdered root to be taken in the morng, no supper having been taken the night before. It nerally sickens a little. A brisk purgative, with a tle calomel, is to be given a few hours after, which metimes brings off the worm entire; if not, the same urse must be followed at due intervals." For the ccess of this remedy, it is necessary the root should *recently* gathered; as, after being kept long in the ops, its activity is diminished or destroyed. It ould be used recently dug, being brought to a state

* A smaller dose should be tried first.

fit for powdering by drying it in a gently heated oven, or within the gentle heat of a fire.

Very lately the spirit of turpentine has been found to be very efficacious in the expulsion of the tape-worm: it is given in the quantity of a large tea-spoonful, mixed with a little honey twice a day. In some instances, the dose was increased to a large table-spoonful.

The *ascarides*, or round short worms, are principally lodged in the lower intestines, and through being enveloped in mucus, are often very difficult to dislodge. With the use of a purgative powder, it will be proper to inject the following by means of the clyster-syringe:

Take of martial flowers, twenty grains; lime-water, eight ounces: dissolve the flowers in lime-water. To be injected warm.

A strong decoction of Indian pinks, with common salt, has been recommended by Dr. Clark; and a solution of asafetida in water, and tobacco-fumes, by other eminent physicians; to be thrown into the rectum. The muriated tincture of steel would probably prove more powerful, if the worms were not defended from its action by the mucus in which they are so completely invested. Soap-lees have been recommended for dissolving the mucus, but they often produce considerable irritation. The repeated use of calomel and jalap, with the injection of the solution of steel, as above directed, generally succeeds in destroying them,

Prevention.—For the prevention of worms, it will only be necessary to attend to the state of the digestive organs, and to avoid such diet as is likely to derange them, as acid or unripe fruit, fermented liquors, &c. If the pale or dark appearance of the feces should indicate a deficiency of the secretion of bile, the patient should take half a grain of prepared calomel at bed-time, for five or six nights; for nothing is more destructive to the life of worms than a proper secretion of bile.—*See Indigestion.*

Children are very subject to an irritative fever, from having been indulged in too great quantities of fruit

acescent food, which is generally attended with e symptoms denoting the existence of worms. This ver has therefore been termed by Dr. Musgrave the *urious Worm Fever;* and latterly, by Dr. Butter, e *Infantile Remittent Fever.* Dr. Hunter states, at he dissected "a great number of children who d been supposed to die of fever arising from worms, whom he did not discover the least appearance worms." This fever is evidently symptomatic of disordered state of the digestive organs, and may be ured by a gentle emetic of ipecacuan powder, the casional use of rhubarb and calomel, and a little stoachic medicine.

No disease offers such a field for the imposition of uacks as worms. Mercury is the basis of all the orm-specifics that have fallen under my examination. he articles with which mercury is mixed to form it to lozenges, becoming acid by keeping, the mildest reparation of mercury may be thus converted into a owerful poison, nearly equal in violence to arsenic; esides, the mercury not being well blended with the ther ingredients, from the quantity that is made at a me, it may, and I know it has happened, that one ut has contained an over-dose of mercury, while nother in the same box has scarcely contained any. o these circumstances the many fatal effects that ave followed the exhibition of advertised remedies for orms may be attributed.

Of Wounds.

Wounds are divided into different kinds—from the exture of the part; from the nature of the cause; and om the extent of their action.

At first there is a retraction in the divided parts, ccording to the texture of the particular portion of he body which is the seat of the accident. This is ucceeded by a discharge of blood, proportioned in quantity to the size of the injured vessels, or the de-

gree of injury they have suffered. The discharge is gradually diminished by the approach and subsequent progress of inflammation, increased by the irritation of the external air. After a certain time, varying in different cases, from the state of constitution, or extent of the injury, it is followed by an oozing of a faint-coloured or serous fluid, which ends in the surface of the sore turning dry, or being covered with coagulated blood.

During the progress of this state, pain commences, and gradually becomes more acute as the inflammation of the part proceeds, which appears red, tense, and swelled. When the injury is extensive, symptoms of fever supervene, which terminate either by the extreme action of the vessels inducing gangrene; or, by a serous fluid oozing from the surface of the sore, where collecting, it is converted into pus, with the removal of all the more violent inflammatory symptoms of heat, tension, and pain.

From this period the process of healing appears; the surface of the divided parts displays every where points or sprouts of a firm, red, fresh, or vermilion appearance, termed granulations.

These granulations gradually increase, and fill up the loss of substance, the effect of the injury; and the rapidity of their growth is proportioned to the health of the part. A surface being thus produced, the process terminates in the formation of a cicatrix, either by nature, or by the interference of art to hasten it.

The general prognosis in wounds must be drawn from a variety of circumstances; but the principal deserving attention in forming an opinion are,

1. The state of inflammation.
2. The tendency to a lodgment of matter when formed in the part, or its free discharge.
3. The constitution of the patient.
4. The texture of the part; and,
5. The particular portion of the body injured.

With respect to the first, a certain degree of inflammation must necessarily attend the process of suppuration. Wherever, therefore, it exceeds its natural

gree, it threatens a gangrene of the part; where it is ficient, the process of healing is retarded, or even tirely suspended.

In regard to the second, the lodgment of matter, as cause of irritation, is always unfavourable to the newal of a part. Hence, where the free exit is pre-nted by the form of the wound, our opinion must guarded, such wounds being often highly embar-ssing.

On the third, it may be observed, that independent the simple circumstances of the wound itself, our pe of a speedy cure must be faint, where a taint of nstitution is known to prevail, or where the solids, m age, are less capable of going through the process reformation.

On the fourth, the texture of the part, much de-nds for the facility of the cure, as well as the ease of e patient. Thus the more yielding texture of the llular membrane, and muscles, is repaired in half e time of a ligament or tendon, or where a bone is ured, or a gland divided. The division also of ner-us structure is often attended, independent of pain, th alarming and fatal tetanic symptoms.

On the fifth, the part of the body, much depends in ming our prognosis. Wounds of cavities are highly be dreaded in comparison with those which affect rfaces. Wounds of the extremities are also favour-le, compared with those which are in the immediate inity of joints. Wounds of the large blood-vessels e dangerous, from the difficulty of restraining hæ-orrhage, and even, when restrained, from the danger impeding circulation.

From a consideration of these various circumstances, very guarded judgment may be formed of the pro-ble termination of injuries of this kind, even inde-ndent of accidental circumstances that may arise m the conduct of the patient himself in their ogress.

No part of medicine has been more mistaken than e treatment or cure of wounds. Mankind in general lieve that certain herbs, ointments, and plaisters,

are possessed of wonderful healing powers, and imagine that no wound can be cured without the application of them. It is, however, a fact, that no external application whatever contributes towards the cure of a wound, any other way than by keeping the parts soft and clean, and defending them from the external air; which may be as effectually done by dry lint, as by the most popular applications, while it is exempt from many of the bad consequences attending them.

The same observation holds with respect to internal applications. These only promote the cure of wounds as far as they tend to prevent a fever, or to remove any cause that might obstruct or impede the operations of Nature. It is Nature alone that cures wounds. All that art can do is, to remove obstacles, and to put the parts in such a condition as is the most favourable to Nature's efforts.

With this simple view we shall consider the treatment of wounds, and endeavour to point out such steps as ought to be taken to facilitate their cure.

The cure of all wounds is effected, either by adhesion or suppuration; and previous to employing either of these modes, two preliminary indications are to be attended to:

1. The first is, to stop the farther effusion of blood.
2. The second, to remove any extraneous irritation present in the part.

The former of these is to be immediately executed by pressure, till some permanent means by ligature are applied.

This pressure is to be made in the head and trunk by the hand, to the superior part of the artery, when practicable; but where this cannot be done, by the application of dossils of lint, or pieces of sponge, or agaric,*

* Dr. Tissot gives the following directions for gathering, preparing, and applying the agaric:—Gather in autumn, says he, while the fine weather lasts, the agaric of the oak; which is a kind of fungus or excrescence issuing from the wood of that tree. It consists at first of four parts, which present themselves successively. 1. The outward rind or skin, which may be thrown away. 2. The part immediately under this rind, which is the best of all. This is to be beat well with a ham-

the mouths of the bleeding vessels, held over them the hand, or secured by a bandage; but in the extremities, a more effectual restraint is in our power, om the use of the tourniquet, an instrument well nown to every surgeon; which, after successive improvements, is now made to act with such an equal essure on every part of the member, as completely restrain the hæmorrhage from its smallest vessel.

After this preliminary treatment, the cure of the ound, the principal object, should engage our attenon; and this, we observed, is completed either by *hesion* or *suppuration*.

The former, or healing, as it is termed, is by the hesion of surfaces by an inosculation of parts, through e connecting medium of a glutinous excretion, which ts short the process of healing, and prevents any ccay of divided parts. This is effected by drawing e divided parts closely into contact, and covering em completely with the external teguments. The nner of doing this, where the wounds are not very ep, is by the use of straps of adhesive plaister, termed e dry suture, which are applied by fastening one-lf of the plaister on one side of the wound, and the er on the skin, on the other side of the wound, wing it tight, and holding it firm till the warmth he part secures it.

The period of adhesion varies in different cases; t it generally takes place in five or six days, when ligatures may be removed, and this mode of treatnt will generally be successful to a certain extent, l at any period of the accident, unless two circumnces occur:

till it becomes soft and pliable: this is the only preparation it res, and a slice of it of a proper size is to be applied directly over the ting open blood-vessels. It constringes and brings them close toge-, stops the bleeding, and generally falls off at the end of two days. The third part adhering to the second, may serve to stop the bleedfrom the smaller vessels; and the fourth and last part may be reed to powder, as conducing to the same purpose. Where the ic cannot be had, sponge may be used in its stead. It must be ied in the same manner, and has nearly the same effects.

1. Excess of irritation, pain, and inflammation, from the ligatures; or,

2. Lodgment of matter, occasioning troublesome sinuses.

Where the former takes place, every mode of relaxation is to be employed by unguents and emollients, to soften the teguments of the part; and, if these fail, topical venesection and opiates may be used; but if still ineffectual, the ligatures should then be completely removed.

The lodgment of matter is easily prevented, by guarding against any cavity being left betwixt the surfaces in this method of cure, and particularly in passing the sutures.

The constitutional treatment under this mode of cure, should be guided by antiphlogistic principles: a low diet should be strictly enjoined, and unless in a very enfeebled habit, it should be laid down as a general rule not to be departed from. A slow belly, or costive state of the bowels, is hurtful in all cases of wounds.

2. Cure by suppuration.

The second mode of treatment, by suppuration, is unavoidable, where, in consequence of the injury, the retraction of parts is so great as not to admit the possibility of their inosculation. The cure here depends, as formerly described, on the formation of a new substance by granulations, and the decay of the contiguous divided parts, to reduce the surface to a level with the cicatrix. The method of effecting this is by exciting and keeping up a certain degree of inflammation in the part, such as is sufficient to hasten the process of healing. The chief remedy for this purpose is a due application of heat, suited to the state of the wound: and this application should be made so soon as the inflammation succeeding the injury is fairly begun, and continued till a full appearance of pus, with relief of the more violent symptoms of inflammation, takes place. The means by which heat is applied here, is either in the form of fomentation or poultice. The former is commonly applied where the

ain and inflammation are violent, as a temporary re-
f. The latter is used as a permanent application in
is first stage, and as, at the same time, excluding an
dditional cause of irritation, the access of the exter-
l atmosphere to the part.

When the symptoms of violent inflammation abate,
d the process of healing is begun, such a degree of
eat and relaxation as the poultice conveys, is unne-
ssary, and even prevents that firmness of new growth
hich hastens the cicatrix of the part. Such applica-
ons must then give place to those that merely, by
eir soft spongy nature, afford a covering, and fill up
e space of the sore, excluding at the same time the
cess of the air by lint, and soft coverings may be pre-
ously spread with some liniment, to prevent adhe-
on, and facilitate their removal. After a due quan-
y of covering upon it, a compress should always be
plied over the sore, which may be supported by a
ndage either of linen or flannel, though the latter is
mmonly preferred.

The frequency of removal of dressings in sores, is a
int still undetermined by practitioners, and the ap-
arance of the discharge is the only rule to regulate it.
ill a full appearance of this ensue, there is no obvi-
us necessity, which will generally not be sooner than
ree or four days, sometimes later; and so soon as
e poultice is laid aside, a daily dressing of the sore
ould follow. When the process of healing becomes
terrupted, and a change arises in the nature of the
re, it belongs then to the class of ulcers.

But, in the progress of wounds, certain constitutional
mptoms arise that demand particular attention: these
e acute fever, and spasmodic complaints.

1. Fever.—This is marked chiefly by inflammation
d pain; for the alleviation of which a particular at-
ntion is necessary to the state of the wound, and to
move from it any extraneous irritation, if arising
m that cause; attention to relaxation in the position
the part is also proper; and these means may be
rther assisted by the internal use of opiates. Where
e inflammation is violent and deep-seated, unloading

the vessels by topical bleeding, will mitigate the symptoms, which may be farther aided by fomentations and poultices, to produce the same effect. If these are not sufficient, and the pain still continues acute, it probably depends on a partial separation of nerves, to relieve which, a complete division of them should be made.

2. Spasm.—The spasmodic complaints are often very violent, and attended with the greatest danger. They vary in degree from the slightest convulsive twitches to the highest state of spasm in the attack of the lock-jaw, and tetanus, or general convulsion.

The safe treatment of such symptoms, when slight, depends on the use of opiates, and in attending to the posture and ease of the wounded part.

When severe, and of the convulsive kind, they are then to be obviated by the means commonly had recourse to in the cure of tetanus, arising from other causes, *viz.* by large doses of opium, the use of the warm bath, mercury, friction, rubbing with emollients, &c.

The removal of the wounded part, or member, when in the extremities, was formerly a practice much employed; but in every case of spasm it is known that the effect survives the cause, and such practice not being successful, and often adding to the irritation of the disease, has occasioned its being now laid aside. Such complaints never arise in the first stage of the affection, or while the inflammation continues acute; hence exciting inflammation in the part, in cases of slight wounds, has been considered as one means of cure, and conducting the constitutional treatment, on the idea of debility, by the use of wine, bark and tonics, has been found to be the most successful practice.

Such is the treatment of what may be termed *simple wounds,* or of such as arise from a free incision of parts; but this treatment comes to be more varied when the injury is effected by puncture; where there is much contusion and laceration; or where it takes place from a substance of a poisoned or contaminating na-

e; even in parts of a firm unpliable texture, the cure ttended with difficulty. All such may be distin-shed under the general term of *complicated wounds*, l require next a particular consideration.

We shall divide them into two kinds, as affecting ier parts of a simple, or of a more complex struc-e. Previous to which it may be observed, it is onishing how far the power of Nature extends in airing such injuries. But their cure, in general, s been remarked to proceed quicker in spring, wer in winter and summer, but slowest of all in umn.

COMPLICATED WOUNDS OF COMMON STRUCTURE.

WOUNDS FROM PUNCTURE.—Punctured wounds are tinguished by the smallness of their aperture, by ex-s of pain and inflammation, compared with the ap-ent degree of injury they display, and by their dif-lt tendency to heal.

The causes that regard their healing are,

1. The irritation of extraneous substances, from the ure of the wound, not easily removed.
2. The lodgment of matter.
3. Partial divisions of nervous parts. And,
4. Small tendency to adhesion in the contiguous faces.

The treatment of punctured wounds depends, for success, in accomplishing one of two circumstan-: either procuring access to the bottom of the sore; failing of this, in preventing a lodgment of matter re.

When the former is not practicable, the preventing dgment of matter, is next to be attempted; and is executed chiefly by pressure, or the use of as-gent injections.

A proper application of pressure, will often both vent a lodgment of matter, and also produce an esion betwixt the two surfaces, so as to effect a e. Where it fails, astringent injections may be

employed. They should be moderately strong, to suit the advanced stages of such sores. A solution of sugar of lead, of lime-water, diluted port, or solution of alum, are all used at different times with this view.

WOUNDS FROM CONTUSION AND LACERATION.—Lacerated and contused wounds are marked by their ragged edges, by the greater swelling of the parts, compared with simple wounds, by their less alarming external appearance, from little or no hæmorrhage, and by their strong disposition to gangrene in their progress.

The chief indications in the treatment of such wounds, is to counteract the disposition to gangrene; and having finished the preliminary work of restraining any hæmorrhage, if profuse, and of removing extraneous irritation, our great object must be directed to this point.

Gangrene arises here from two causes; actual destruction of vessels, or violence of inflammation. In the first case, as gangrene will almost unavoidably take place, the practice should be directed to counteract its effect on the system, by the use of bark, vitriolic acid, wine, and a full diet, employing antiseptic applications to the part, as is usual in the general treatment of gangrene.

In the latter case, diminishing inflammation is pointed out as a pretty certain mean of preventing this state, if done in due time; and, for this purpose, topical bleeding by leeches should be chiefly trusted to, in such quantity as the violence of the symptoms requires, while every attempt is to be made to induce suppuration of the part, by the application of heat in the form of fomentation or poultice; and this process taking place, a relief of all the symptoms will occur, when it is to be treated as a simple wound.

If this treatment, however, should fail, and gangrene also appear, the same plan must then be adopted as in the first case, when arising from destruction of vessels; and should a separation of the divided parts ensue, the sore must be treated as a common wound.

Wounds of veins.—Wounded veins can never be ttended with any trouble, except when very large. heir hæmorrhage will generally yield to pressure ith a compress, to the use of fine sponge or agaric; nd should these fail, a ligature may be used, as in ar- ries, though there will seldom be occasion to employ . The treatment is to be conducted here chiefly by ry dressings of lint or linen.

Wounds of lymphatics.—Wounded lymphatics re distinguished by a troublesome serous discharge, ontinuing after the rest of the injury is healed; and, hen considerable, producing a deal of weakness in ne system. The treatment is the same as in common ounds attended with inflammation.

Wounds of nerves or tendons.—Wounds of such arts are chiefly distinguished by excess of pain, with- ut a corresponding excess of inflammation always ac- ompanying it; and by the attack also of convulsions, o as, in the end, generally to prove fatal.

Two methods are employed here; a palliative, and adical. The first is by the use of antispasmodics, articularly large doses of opium; but its effect is nerely temporary. The second, in the complete divi- ion of the wounded nerve, so as to take off the irri- ation arising from the partial separation. When this s performed, the part is then to be treated as a simple ound.

Wounds of the eye.—Wounds of this part are of wo kinds, either affecting the eye itself, or its ap- endages.

Wounds of the eye-lids.—The latter are the nost simple; and, in the division of the lids, the chief oint requiring attention is, to effect a reunion of the ides, and, at the same time, no way to impede the notion of the part.

In a longitudinal wound, this is easily done by ringing the sides together, and securing them by ad- esive plaister; but in a transverse division, and where portion of the cartilaginous substance is also includ- d, this is more difficult to effect. Where so much of he lid is destroyed that no reunion can take place,

the cure must be trusted to Nature for filling the void in the progress of healing.

Wounds of the eye-ball.—In most wounds of the eye, if near the transparent cornea, a loss of vision seems unavoidable, even though superficial; but wounds here are chiefly to be considered alarming in proportion to their depth and extent.

In the first case, the symptoms of inflammation which ensue are highly to be dreaded, as they are apt to communicate to the brain; in all wounds of the eye, therefore, however slight they may appear, the most active means are to be used to obviate this symptom, in the manner detailed under *Inflammation of the Eyes*, page 251.

In the second case, their extent endangers a discharge of the humours of the eye, and causes blindness, and a shrinking of the eye itself.

Wounds of the eye are to be dressed with any emollient liniment, occasionally washed with a saturnine solution; and, where exciting pain, the latter is to be obviated by the use of opiates.

Wounds of the throat.—Wounds of the throat are commonly met with in the rash attempts at suicide, and in these cases the wind-pipe or gullet are generally more or less divided.

In divisions of the wind-pipe, the use of adhesive plaister is to be chiefly trusted to for producing reunion of the sides of it. When divided longitudinally, this will always succeed; when transversely, it reqires the assistance of the position of the head, which should be kept bent down towards the breast, and the use of a night-cap, with a broad tape under each ear, so as to secure it by a roller round the breast, which will retain it in this state. If this method should not be sufficient to procure adhesion, ligatures may then be applied, but the stitches should be passed only through the skin and cellular substance, without passing into the trachea, and made from within outwards. Three will generally be sufficient, the ends of which should be left out of the external wound, and the plaisters are then to be applied above.

In this situation, certain morbid circumstances require to be attended to, previous to this treatment. These are the divisions of nerves, and vessels producing hæmorrhage. Whenever hæmorrhage takes place here, every vessel, however small, must be taken up, to prevent the irritation and disorder which the blood passing into the stomach and lungs occasions, as cough, sickness, &c. When the carotids are wounded, the wound is generally fatal. Where the jugular veins are divided, an attempt may be made to restrain the effusion, and produce reunion by pressure, either simply with a roller, or by an instrument which avoids the trachea.

Wounds of the chest.—Wounds of the chest are always highly alarming, in proportion to their apparent depth, and their chance of having penetrated some of the lungs. They may be divided into three kinds, *external*, *penetrating*, and *complicated*.

External wounds here differ little from common wounds elsewhere, except where they run deep in the form of sinuses; and, when this is the case, a speedy discharge should be procured by the most effectual means, from the danger, if the matter lodge, of making its way through the pleura into the chest.

From the nature of the affected part, the constitutional management is here of much importance. An antiphlogistic course should be rigorously enjoined, and rest and quietness particularly recommended, so as to diminish, as much as possible, the action of the thorax.

Penetrating wounds of the chest.—Simple wounds of the chest, which enter into its cavity without injuring the contained viscera, are chiefly hazardous from the admission of extraneous matter to the lungs. These are blood and atmospheric air, either of which produce difficulty of breathing, and other symptoms of oppression that attend a compressed state of the lungs.

The principal step in the treatment of such wounds, is the removal of the extraneous irritation; and the first attempt towards it is restraining the hæmorrhage.

When the extraneous irritation depends on the access of the external air, it is to be expelled by a full inspiration of the patient, carefully closing the wound by drawing the skin over it during expiration; and this repeated twice or thrice, will relieve the oppression by expelling the irritating cause. The sore is then to be treated as a simple wound.

COMPLICATED WOUNDS OF THE THORAX.—By complicated wounds of the thorax, are understood such as not only penetrate the cavity of the chest, but also extend their injury to some of the contained viscera.

Wounds of the lungs are distinguished by the frothy and florid appearance of the blood discharged; by spitting of blood from the mouth; by the hæmorrhage not being checked on pressure of the intercostal artery; by a continual rushing out of air from the wound; and by the state of the respiration and pulse.

Wounds of the lungs, though always alarming, are chiefly dangerous from two circumstances: the violence of hæmorrhage; and the tendency to the formation of abscess, inducing a hectic state.

The first is to be restrained by lessening the force of the general circulation by venesection; by a strict antiphlogistic course, and particularly avoiding, as much as possible, all action of these parts, or whatever may occasion motion of the chest. When this is accomplished, the treatment of the wound must be conducted on the same plan as when simply penetrating the cavity.

Where an abscess forms in the injured part of the organ, it is a tedious process, and before it discovers itself, the external wound is frequently healed.

The symptoms which attend this are much the same with those that mark suppuration in other parts; *viz.* frequent shivering fits, and fever; but here there is felt also difficulty of breathing, and particularly when lying on the sound side.

The matter of such abscesses is discharged in one of three ways; either by bursting into the stomach, and being thrown up; by emptying into one of the cavities of the chest; or by being discharged at the

und itself. In allowing the first to take place, there always danger of suffocation; but should this not pen, the treatment, after the discharge, must be ducted in the same manner as recommended in second stage of pulmonary consumption, by attenn to a light nourishing diet, moderate exercise, rticularly riding on horseback; or, what is preferle, a sea voyage.

Where matter empties itself into the cavity of the est, it is to be removed by a small trocar; but before operation, if the previous symptoms indicate its mation, and a small oozing should appear at the fice of the wound, it should be first enlarged, to certain the extent, and then an opening cautiously de with a bistoury, pushed slowly into the subnce of the tumor, to evacuate its contents. When s is accomplished, the external opening for the disarge of any further accumulation should be preved by the introduction of a tube or tent, suited in e and length to the state of the wound, and contied till the internal parts heal up. Frequently, hower, such abscesses continue to discharge matter for rs, or the whole of life, and it is not in the power the practitioner to accomplish completely the pros of reunion. The chief step towards it, is preserv- the free discharge of the matter.

APPENDIX.

AGE.—The word *age* has been generally understood to refer to the advanced period of life; and in that sense we shall view it here. Its treatment, in order that it may be enjoyed with satisfaction, claims an important and minute consideration.

The diseases of old men are easily prevented, but seldom cured. Besides moderate diet and due exercise, which are the best guardians of health at every period, ease and cheerfulness are two great preservatives in old age.

That old person's digestion is good who has a sharp, but not voracious appetite, and who feels no pains or sickness after meals. To preserve this, let him be content with less than he could eat. To keep the stomach in order, do not overload it. The best time to feel the pulse is in the morning, a little after getting up, and before breakfast. It should be a rule never to omit this examination. A constant attention to the pulse will shew its slightest variations; and when any such happen, care must be taken of the health. A frequent examination of the pulse will inform us what is the state of it in health; and deviations from that state indicate sickness. When the pulse of an old man is regular, his digestion good, and his mind at ease; and when, at the same time, he can take his usual exercise freely, he may be certain he is well. If the pulse be too quick and high, the diet must be lower; if too slow and weak, the food must be richer. This short direction will prevent diseases. In the early part of life, exercise is very instrumental in preserving health; but when old, we cannot take so much exercise, and must therefore be more careful in our diet. That will go off well with exercise which will overload when quiet; that will nourish, while we walk abroad, which, when we stay at home, breeds fevers.

We must not make this change of diet violently; for all sudden alterations are dangerous. Our strength or exercise will leave us by degrees; and we must reduce our food accordingly. Old men are least healthy in winter; they should then be most careful. They are colder than the young; therefore cold more affects them. They will perceive the cold has hurt them, when they find the pulse weaker and slower than usual; and they must recover from the new damage by more warmth of clothing, and a somewhat higher diet.

If perspiration has been stopped by cold, and no very ill effect follow, it will be seen by the urine being paler, and more in quantity than usual. In this case, let flannel be put on carefully: after that, let the flannel be carefully left off again. Health is preserved by the evacuations having all their proper course and quantity; and flannel will diminish one as much as it increases another. No disease is generally more troublesome to old men than costiveness; and that may sometimes be occasioned by the improper use of flannel.

If the appetite fail, or the stomach be oppressed after meals, take more air and exercise. Lamb, veal, pig, chicken, and tame rabbit, are excellent; and out of these, if there were no others, a tolerable management may produce a sufficient variety. No aged person should eat more than one meal of solid food in the day. The stomach will manage a dinner, when breakfast and supper have been light; otherwise, the load of one meal, not being removed before another is taken, neither of them will be digested. Dinner should not be eaten too early; nor, on the other hand, too late.

With respect to supper, the lighter it is, the better; though we do not advise the omitting of it entirely. Moderation is the rule of health. There is a medium between a heavy supper and emptiness; and that is best. Let the old man eat liquids; and of all liquid diets, those which are partly composed of milk are best. The digestive faculties of an old man are weak; but milk is in a manner ready digested. He wants an easy nourishment; and this affords it, without load-

ing the stomach, or oppressing it during the hours of rest.

Ass's milk is most easy of digestion; a pint of it with a small toast, eaten two hours before bed-time, will be nourishing, and sit easy on the stomach. The value of ass's milk is its lightness; that of the cow is richer and heavier. Those who use the latter in the country should mix it first with an equal quantity of soft water: in London this care is unnecessary; those who sell milk do it for them.

Bathing—is the immersion of the body in water, or any other fluid, for the purposes of cleanliness, the preservation of health, or the cure of disease. Its consideration under these heads, will lead us to consider the different kinds of baths.

Baths—may be divided into four kinds, according to their degrees of temperature, *viz.* cold, temperate, warm, and vaporous.

Cold Baths.—Bathing in rivers as well as in the sea, is effectual for every purpose of cleansing the body; it washes away impurities from the surface, opens the cutaneous vessels for a due perspiration, and increases the circulation of the blood. For these reasons it cannot be too much recommended, not only to the infirm and debilitated, under certain restrictions, but likewise to the healthy. The apprehension of bad consequences from the coldness of the water, is in reality ill founded; for besides that it produces a strengthening effect, by its astringent property, the cold sensation is not of itself hurtful. The same precaution however, is requisite in the use of the cold as in that of the tepid bath; for after over-heating the body, especially in the hot days of summer, it may prove instantly fatal by inducing a state of apoplexy. Hence the plethoric, the asthmatic, and all those who perceive a great determination of blood to the head, should be very circumspect in its use. For although the consequence may not prove immediately fatal, yet, from the sudden force and pressure of the water, some of the smaller blood vessels of the head and breast may easily burst, and thus lay the foundation of an

urable disorder. To such as are of a sound and ust constitution, bathing may be rendered an agree- le exercise, by swimming against the stream; for fibres and vessels being obliged to resist the power the undulating waves, the energies of the system thereby excited into action. All other strengthen- remedies operating in general only on the fluid rts of the body, require to be previously dissolved the fluids, and blended with the mass of blood, in ler to be conducted to the solid parts. The cold bath, the contrary, acts almost instantaneously, on the id parts themselves, and produces its bracing effect ore a single drop of blood has been commuted: ely then from this remedy it is more likely we should ive the desired effect, which immediately answers purpose, than from that which must pass through so ny canals, and undergo so many changes before it ves at the place where it is to exert its efficacy. e sudden changes arising from the application of cold bath, contribute in various ways to brace the nan body. The relaxed fibres of the skin, and the scles, acquire more solidity and compactness from traction. Their elasticity is increased, and thus nsiderable defect is removed: the nerves are sti- ated, and incited to those powerful exertions on ch the ease, vigour, and habitual sprightliness of body, so much depend. From that degree of irri- lity which the nerves possess when in a debilitated e, generally arise hysteric, spasmodic, and convul- symptoms and affections. These may be miti- d or removed by the cold bath, because it power- affects and alters the state of the nerves; it shakes animates them, and by its forcible operation, over- es their tendency to preternatural rigidity and r disagreeable sensations. Here then we have causes which illustrate the excellent effects of this dy; there remains, however, to be explained a l cause, which is still more important. The exter- use of cold water is of singular benefit, when ap- l to particular parts of the body, where its use may uch longer continued without danger, and where

we may, in a manner, by compulsion and perseverance, produce the intended effects. Of all the parts of the body, the head receives most benefit from the effusion of cold water; this is a simple and effectual remedy against too great an impulse of the blood towards the head, in disorders of the brain and cranium; where persons are threatened with apoplexy, as well as in wounds and other complaints to which the head is subject. The affusion of cold water upon the abdomen, has likewise been employed with great advantage in cases of obstinate costiveness, as it affords almost instantaneous relief, when internal remedies have produced no effect. This should not however induce persons to try that remedy indiscriminately, or without proper advice. On the contrary, in all those cases where the cold bath might repel certain eruptive humours which nature determines towards the surface of the body, it cannot be resorted to without danger. Apoplexies have been the consequences of an unwary use of the cold bath; and yet, the popular opinion still prevalent is, that there can be no better practice than to plunge into the cold bath at *all times*, and in *all states of the body*, in order to strengthen the nerves.

The Warm Bath,—about the temperature of the blood, has usually been considered as apt to weaken and relax the body; but this is certainly an ill-founded notion. It is only when its heat exceeds that of the human body (as in the *hot bath* and King's bath, at *Bath*, both of which are from 18 to 20 degress higher than blood heat) that the warm bath *can* produce a debilitating effect. Indeed, baths of the above immoderate heat ought not to be used without reducing their temperature by cold water; except in particular cases, and under the immediate advice of a physician. On the contrary, the tepid bath from 85 to 96 is always safe; and is so far from relaxing the tone of the solids, that it may be justly considered as one of the most powerful and universal restoratives with which we are acquainted. Instead of heating the body, it has a cooling effect; it diminishes the quickness of the puise, and reduces it in a greater proportion, according as

e pulse has been more quick and unnatural, and cording to the length of time the bath is continued. ence tepid baths are of eminent service, where the dy has been over-heated, from whatever cause; nether after fatigue from travelling, severe bodily ercise, or after violent exertion and perturbation of nd; as they allay the tempestuous and irregular ovements of the body, and consequently invigorate e system. By their softening and moistening power, ey greatly contribute to the formation and growth the body of young persons, and are of singular be- fit to those whose growth is checked in early life; that the warm bath is particularly adapted to pro- g the state of youth, and retard for some time the proach of full manhood. This effect the tepid baths oduce in a manner exactly alike in the coldest as ll as in the hottest climates. From what has been vanced, it will not be difficult to discover in what rticular disorders the tepid bath may be of the atest service, and the reason why it proves so emi- ntly useful, particularly in a parched and rough te of the skin, in paralytic, spasmodic, bilious, con- mptive, hypochondriac, hysteric, and insane cases, well as in an acrimonious and impure state of the iids, such as scorbutic and leprous complaints, lues, .. One obvious effect of the habitual use of the h, particularly the tepid, is, that it softens and re- ws the external integuments of the body. It con- erably increases the pressure on the body from hout; hence breathing, particularly on entering the h, is somewhat difficult, till the muscles have by ctice become inured to a greater degree of resist- e. Yet this effect, which in most instances is of all importance, requires precaution in some parti- ar cases, so far as to prevent the use of the bath gether; for instance, in persons of full habit, who in danger of breaking some of the internal blood- sels by the precipitate use of the bath, whether rm or cold. These few hints will be sufficient to ermine the cases in which the lukewarm bath may restorted to with safety and advantage.

The Vapour Bath—is generally employed against disease. It consists in receiving the steams of warm water on the whole, or particular parts, of the body. This is a remedy much employed in savage life, particularly among the Indians in America. By this mean, as their diseases are mostly of an acute nature, an immediate crisis is given them through the skin; and there is no doubt that in the diseases of a variable climate, which are so much occasioned by a loss of balance in the equilibrium between the external and internal parts, this powerful method of restoring the regularity of circulation, and reducing the unequal temperature of a part, cannot fail to prove most effectual.

But the best manner of conducting the vapour bath to give its full influence, is among the Turks, of which an account is given by Mr. Savary, in those of Cairo. The application of it by his description takes place in the most gentle and regular way. The temperature increases as you proceed to the baths within; when there, you are feely exposed to its effects till a gentle moisture is diffused over the whole body. When it is brought to this point, an assistant gives a certain pliancy and flexibility to every part, and then detaching every excrementitious particle from the surface by the operation of friction, so that the skin is reduced to the most smooth and natural state. This is succeeded by unction to a certain degree. This unction is again washed off either with warm or cold water, as you incline. The body must be wrapped up in warm linen, and leaving this excess of temperature, you are conducted to bed in a cooler apartment. Here also some degree of friction is applied to the skin, so as thoroughly to dry it, after which you dress, and the operation is finished.

The Shower Bath.—The best method of cold-bathing is in the sea or river. But where, from necessity, it is resorted to in the house, we recommend the *shower-bath*, for which a proper apparatus is to be had at the tin-shops. Where the saving of expense is an object, it may be effectually supplied by the following

asy expedient: Fill a common watering pot with old water; let the patient sit down, undressed, on a stool, which may be placed in a large tub; and let the hair, if not cut short, be spread over the shoulders as closely as possible; then pour the water from the pot over the patient's head, face, neck, shoulders, and all parts of the body progressively down to the feet, till the whole has been thoroughly bathed. Let him next be rubbed dry, and take gentle exercise till the sensation of cold be succeeded by a gentle glow all over him. When we first resort to this kind of bath, it may be used gently, and with water having some degree of warmth, so as not to make the shock too great; but as the patient becomes accustomed to it, the degree of cold may be increased, the water may be allowed to fall from a greater height, and the holes in the pan may be made larger, so as to make the shower heavier. A large sponge may in some degree be substituted for a watering pot.—Although the shower-bath does not cover the surface of the body so universally as the usual cold baths, this circumstance is rather favourable than otherwise: for those parts which the water has not touched, feel the impression by sympathy, as much as those in actual contact with it. Every drop becomes a partial cold bath in miniature, and thus a stronger impression is excited than by any other mode of bathing. The shower-bath, for the following reasons, possesses advantages superior to all others:

1. The sudden contact of the water, which in the common bath is only momentary, may be prolonged, repeated, and modified at pleasure.

2. The head and breast, which are exposed to some inconvenience and danger in the common bath, are here effectually secured, by receiving the first shock of the water; the blood is consequently impelled to the lower parts of the body, and the patient feels no obstruction in breathing, or undulation of blood towards the head.

3. The heavy pressure on the body, occasioned by the weight of water, and the free circulation of the

blood in the parts touched by it, being for some time at least interrupted, make the usual manner of bathing sometimes detrimental. The shower-bath, on the contrary, descends in single drops, which are at once more stimulant and pleasant than the immersion into cold water, and it can be more readily procured, and more easily modified and adapted to the circumstances of the patient.

Madness—is one of the most dreadful calamities which human nature can suffer; and it is only by seeing a person thus deprived of the powers of reason that we can properly appreciate the blessings of a sound mind.

Madness is a false perception or judgment of things, which is most generally displayed in the opinion formed by the patient of his nearest friends; in a want of due connection in the train of thought, marked by an incoherence or raving, accompanied, for the most part, with a violence of action, and furious resentment at restraint. To these symptoms may be also added the remarkable power of the system, under the influence of madness, in resisting the usual morbid effects of cold, hunger, and watching.

This disease shews itself in a variety of ways, and at different periods of life. It is often preceded by long and deep melancholy; at other times a remarkable cheerfulness prevails. Sometimes these two states alternate with each other. In its attacks, the same variety is conspicuous. In some cases, it is merely temporary, or occurs in fits; but these fits are very liable to return. At other times, it continues for life, and the patient sinks at last under the violence of the conflict, without any abatement of the symptoms; or a state of real idiotism ensues.

Two constitutions are particularly the victims of madness; the sanguine, and the melancholic: by the difference of which, its appearance is somewhat modified. No disease, however, is so often hereditary as this.

The causes of madness are very numerous, but none so certainly produce it as affections of mind and violent

ssions. Certain diseases of the febrile kind often in-
ce it, where their action has been violent. Excessive
icuations, sedentary life, violent exercise, intense
t, various substances received into the stomach,
nkenness, &c. have been likewise enumerated.

This disease has been known, at times, to depart
a regular crisis, and by a large discharge of the
norrhoids in men, and menses in women; by
scesses, by ulcers, eruptions, and large evacuations
bile; and also by the attack of other diseases.
t the success of such discharges, when appearing,
not always to be depended on.

Our opinion in cases of madness is more uncertain
an in most other diseases; where attended with
lancholy, and frequently fixed attention to one
int, the hopes of cure are more distant than where
opposite state of mind prevails. Alternate changes
mind from joy to grief are reckoned favourable;
l the more the constitution departs from the purely
nguine, or melancholic, a prospect of cure is afford-
. When the malady also can be traced as connected
th some bodily derangement, it is always to be
eaded, and life is generally protracted under it to a
y late period.

Dissections of maniacal subjects have shewn both
general and local morbid state of the head. The
mer has appeared in a peculiar firmness, hardness,
d often elasticity of the brain, and also a richer con-
tence of its substance than usual. In the latter,
ious organic changes of particular parts have been
covered, as tumors, exostoses, inequalities of the
ebrum, polypi, schirrhi, enlargement of the vessels
oducing congestion, and, particularly in melancholic
ses, effusion and thickness of membrane, &c.

For the cure of this disease, several things should
attempted, though it is too often beyond the power
medicine to remove it.

The first is, a forcible restraint of the patient from
ing way to his unruly passions, to his own injury
that of others.

The second is, the removal of every irritation that

may add to the present state of excitement in the system.

The third is, producing a sudden and violent effect on the nervous powers, so as to attempt to change or interrupt the present train of perception.

The fourth is, without any violence, directing the attention of the patient to particular objects that may wean him from his own impressions or feelings.

The first of these is accomplished by the immediate confinement of the patient, and the use of the strait waistcoat; by removing him as much as possible from every familiar object, or whatever may recall to his mind the reflection of his present state; and by inspiring him with fear of those who are placed to take charge of him. When this is done, less subjugation will then be necessary; but the propriety of the lengths to which the different parts of this indication are to be carried, must be regulated by the circumstances of particular cases.

It is of importance in this disease to limit the patient to a low spare diet; and most maniacs bear this alteration without being much hurt by it, whatever their former mode of life may have been.

On the same principle, bleeding and cathartics have been employed here. The former is only suited to the commencement of the disease, or to cases combined with some degree of fever. The latter is most useful in the melancholic habit, and where an accumulation of bile is evident. Hence the encomiums bestowed on hellebore, in this disease, by the ancients.

Cold is also frequently prescribed to diminish irritation, as snow to the head, the clay cap, and shaving the head and bathing it.

Blistering and issues are also used with advantage in recent madness.

Some of the narcotics have been also employed here on the same principle.

Opium has been exhibited with doubtful effect; camphire, in large doses, has been often successful, especially when combined with tartar emetic.

The third indication is excited by the exhibition of owerful emetics, especially the antimonials, and even scruple of tartar emetic has been known to have been iven at once,* without exciting any uncommon symp- om, such is the torpor of the stomach in maniacal ases. In order, therefore, to succeed, the irritability f the organ must be restored by a previous dose of pium.

The sudden and unexpected presentation of familiar nd interesting objects to the patient, frights, &c. be- ong to this head, and have been at times successful n the cure of this disease.

The fourth indication is performed by bringing the atient to attend to some particular object or exercise, specially some work where bodily labour is conjoined. . long journey has been also recommended; but hese are more suited to the state of convalescence han the actual paroxysms of the disease.

Pregnancy—is accompanied with a redundancy ff blood greater or less, in proportion to the previous ulness of the habit. Such a swell in the vital stream ves rise to feverish appearances; such as heat in the alms of the hands, flushing in the face, and a slight ead-ache; but the stomach is most affected by the anges which then take place in the womb and the hole habit. It is often disturbed by the complaints ready described, nausea, vomiting, heartburn, and e like. These, however, are not symptoms of indis- osition or disease, the most healthy women being as ubject to them in the early months of pregnancy, as ose who are delicate and infirm. It is thus that very mother receives timely notice of her situation, ith proper warnings not to overcharge her stomach, hen its powers of digestion are so weak, and a ful- ess of the habit is so manifest.

The whole term of pregnancy may be divided into vo nearly equal parts; the one comprehending the ur months that immediately follow conception, and

* Such a quantity of tartar emetic ought never to be given, except / a medical person.

the other, the remaining five months that precede delivery. During the first period, when there is in most women a strong tendency to an extreme fulness of the habit, nature gives the plainest cautions against improper indulgence, by a weakness of the stomach, frequent returns of nausea and vomiting, head-aches, costiveness, and the other symptoms and effects of indigestion. It is a very absurd, and a very fatal mistake, to suppose that women are then in greater need of nourishing things; when on the contrary, in consequence of the ceasing of the menses, and the redundancy of blood in the system, the strictest temperance is not only proper, but absolutely necessary to prevent illness. When this is neglected, when no regard is paid to the hints of the stomach and of the whole habit, so kindly given by nature, to save the life of the thoughtless or imprudent female, bleeding may be proper; but she should remember, that it is her own intemperance which renders that operation necessary.

Flooding during pregnancy is an alarming symptom; for if not dangerous of itself, it at least threatens a premature exclusion of the ovum, and consequently destroys the effect of conception. From the slight attachment of the ovum to the uterus in the early months, it is not surprising, that such an effect should take place from the slightest causes, when we consider the quantity evacuated at every period, and the size of the vessels from which it proceeds. This flooding arises from the same causes formerly enumerated as inducing abortion; but the same causes which are sufficient to induce flooding, do not always occasion abortion. The symptoms which attend it are pretty similar to those of abortion. It begins with slight rigour, attended with a sense of lassitude and pain, which is succeeded by a weight in the uterus and pudenda. The discharge itself soon appears, moderate, for the most part at first, and soon departing, but returning in a little time with increased violence. The great point, in all cases of flooding, is to be able to form a just opinion with respect to its nature: rules

ill not instruct in this; it is only experience, and e opportunity of frequently observing such accidents pregnancy, that will enable us to draw an opinion om comparison. With a view however to this, floodgs may be divided into two kinds; either, with respect their real danger as threatening the life of the paent, or with regard to pregnancy alone, as endangerg abortion. Till the fifth month, authors have asrted there is little danger from such accidents in the egnant state. There have been instances, however, flooding proving fatal at an earlier period; but, in neral, we find the remark well-founded; and in such rly cases they must have been complicated with some orbid circumstances not duly noticed, or on which eir fatality more justly depended. But after the fifth onth, every appearance of blood from the uterus is be considered as attended with danger; and though e patient be apparently better, it is very liable, on e slightest misconduct, to return. Many women e subject to floodings in every pregnancy; and it rks in them a particular lax state of the uterus, ich generally proves fatal at last.

Whenever a flooding is attended with regular utee pain, however slight, and the second appearance it, or the return after the first discharge, is not soon ecked, it must end at last in abortion; and this will more certain if any filamentous membrane appears the discharge. The alleviation, however, of this nptom should be attempted, and the same remedies used as in the case of abortion.

Preservation of Sight.—In all employments atever, let us attend as much as possible to this cirnstance, that the eyes may have a uniform and icient light, so as to affect the retina on all sides e. The eyes materially suffer when the rays of the are strongly reflected from the opposite wall or dow.

n children, many disorders of the eye have termied in total blindness, because parents have neglectto provide the cradle or window with proper curs. Persons ought to be extremely cautious in the

choice of an apartment appropriated to the labours of the day. We should not place ourselves directly opposite to the light, in reading and writing; we ought to take the light rather in a lateral direction.

A great obstacle to this arrangement is the change of light in the same apartment, by the progress of the sun. Where the sun dazzled in the morning, we find in the middle of the day the most uniform light; which again in the afternoon, particular in towns, becomes reverberatory, and extremely hurtful. This inconvenience should be remedied, if possible, by a change of the room; or, at least, we might obtain more uniformity in the light by means of window curtains or blinds; and those of green or whited-brown linen are best adapted for this purpose.

It is a usual practice to protect weak eyes from the descending rays, by means of shades; because the vivid light from above is thus intercepted. But we ought to consider, that the lower part of the eye is by such means completely shaded; while the upper part of this organ is stimulated by the light it receives from below; a practice which cannot be productive of good consequences. If the malady be situated in the upper part of the eye, this conduct is still more improper: for the healthy part is in this manner protected, and that already relaxed is still more weakened.

Darkness, or shade, is then only beneficial to the eyes, when they are unemployed, when the obscurity is natural, and consequently every where extended. To rest a little during the twilight, is very suitable to weak eyes. No artificial darkness during the day is ever so uniform, but that the eye must exert itself at one time more than at another, and necessarily suffer by this change. Persons who have weak eyes, who spend the whole day in an apartment darkened with green curtains, injure their sight still more by this pernicious practice. It is far more prudent to repair to clear day-light and the fresh air, and to direct the eyes to distant prospects, than to confine them to the close atmosphere of a room, and to the sight of near objects.

Lastly, it is an error to suppose that weak eyes,

hen employed in minute vision, ought to have a faint ght; for by this practice they are certainly still more eakened. Thus green spectacles are very hurtful to ome eyes, as they deprive them of that light which is ecessary to a distinct perception of objects.

RULES FOR WEAK SIGHT.—The artificial light of andles and lamps is detrimental to weak eyes; not, s some imagine, on account of the light being too trong, but because the flame of a candle too powerully illumines the eye in one point, and does not uniormly stimulate the retina.

The means used to prevent the great stimulus from he rays of light are, in general, so regulated, that the creen may not only cover the flame, but also concenrate the greatest part of the light. Thus the room is darkened, and only a small spot above and below the pparatus is illuminated; a practice highly injudicius. The study-lamps, with large round screens, eem to be purposely contrived to impair the soundest yes, by their continued use.

The green parchment screens, formerly used, were likewise objectionable; for though they admitted the ree access of light on both sides, yet they produced oo great a shade before the eyes. The best and most roper defence of weak eyes, by candle-light, is a flat creen, projecting about two or three inches over the orehead; or even a round hat, with a brim of a proer size.

Those who are afflicted with weak eyes should alays make use of two candles, placed so that their ame be neither too low nor too high for the eye. his is a circumstance of great importance, as the ght, when placed too low, is uncommonly stimulating nd fatiguing. Candles have this advantage over mps, that their light is less offensive to the eye, and ss pernicious to the lungs; as they do not, in general, mit so much smoke. But, on the other hand, all andles have the following disadvantages:

1. That, by their burning downwards, the fatigued ye is progressively more strained in the later hours f candle-light.

2. That the unequal light they give is attended with the additional trouble of snuffing them: and,

3. That by the least commotion of the air, or if made of bad materials, they injure the eye by their flaring light.

Hence, a clear chamber-lamp, burning with the least possible smoke and smell, is far preferable, and more soothing to the eye than even wax-candles.

Those screens are the best which are applied to one side of the light only, which are not larger than is necessary to cover the flame, and which still admit a small quantity of light to pass through them. This is obtained by a simple apparatus of taffety, slightly gummed, and folded so that it can be carried about in the pocket. These little screens are very portable, and are possessed of the essential advantage, that they overshade only the small angle formed for the individual who is affected with weak eyes, without depriving the rest of the company of light.

In the day-time, on the occasion of sealing letters, for instance, the light of a candle, or taper, is more prejudicial to the eye than in the evening.

In the morning, we should not too much exert the eyes immediately after rising. Hence it is advisable to remove the candle to some distance, and under shade in the long winter mornings, till the eye be gradually accustomed to it. For the same reason, the window-shutters ought not to be suddenly opened in very bright day-light. This immediate change, from darkness to the clearest light, occasions sensible pain even to the strongest eye.

Writing fatigues the eye less than reading; for the letters we form on the paper are previously imprinted on the imagination, and consequently require much less acuteness of sight, than the series of letters and words we read. It is, for the same reason, much easier to the eye to read our own hand-writing, than that of a stranger, however distinct. Besides, the letters and lines in writing are more distinguishable by the lower part of the blank paper, than the lines in a printed book, or on a manuscript, in both of

which they appear to flow together, and can be kept sunder only by great exertion of the eye. The case is considerably changed, when we endeavour to write remarkably well, or when we make use of a glossy white paper; and particularly when we copy the writing of another person with great accuracy; in all which instances the sight is more impaired than in reading, especially by changing the direction of the eyes too frequently to papers, or books of different types.

In the dawn, in twilight, and in moonshine, we ought not to read or write, nor direct our sight too attentively to objects.

Refracted rays afford an unpleasant light, and oblique rays are particularly painful. When we take exercise in a long, irregularly lighted apartment, we feel sensible vibrations in the pupil of the eye.

A sitting-room, the walls of which are pale green, without paintings, is best adapted to preserve the eyes; two or three uniformly high windows, so as to give an equal light (yet so contrived as to prevent its being too strong;) close and moveable green blinds; a green carpet on the floor; and, lastly, such shutters as may occasionally leave the upper part of the window uncovered, in order to admit sufficient light. To sit with the back to the window, occasions a shade which forms a disagreeable contrast to the surrounding light. The writing desk, therefore, ought to be placed so, that the last window may be on the left hand, and that the right hand may throw no shade on the paper, and not too near a corner of the room, as this generally has an unfavourable light. A space sufficiently broad between two windows is still a more convenient situation for a desk; but we should not sit too near the wall; a custom whic his excessively hurtful to the eyes.

An oblique position of the desk is the most proper; for it presents to us the writing materials in that position in which we are habituated to place a book when we hold it in our hands, and from which the rays of light diverge more gradually than from a horizontal table. It is less hurtful to the breast, to the abdomen,

and also to the eyes, to use a desk of this form, and to write standing rather than sitting; provided that the height of the desk be proportionate to the length of the body, that it stand firm, and that both arms rest upon it, without being fatigued by raising them too high. In standing before a desk, we have this additional advantage, that there is less occasion to direct the eyes upwards than in sitting. Hence the conversation between tall persons and those of a low stature is most troublesome to the latter, as they are constantly obliged to look upwards. Those with whom we converse ought not to stand between our body and the light, as it is both rude, and prejudicial to our eyes.

At night we ought to place the candle so that we may receive light from it in the same direction as we do from the window in the day-time. Even if it be provided with a green screen, as above described, a weak eye will not be able to support its glare in a straight line. Were the candle to be elevated at our back, so as to allow the light to come down over our shoulders, we should then experience the same inconvenience which attends that posture in day-light. Hence it is necessary to place it sideways, and to keep the book or paper in a lateral direction.

We should not expose ourselves in a straight direction to objects strongly illuminated by the flame of a candle, or fire from a grate. Thus the highly polished fenders, and other fire-irons, are injurious to sight; and not less so is a smooth and shining wax-cloth over a table, as refracting too much the rays of light: a green cloth is preferable. In all cases the light should at least be of equal height with the forehead; not close to a white wall, and still less before a looking-glass, or other polished body. To walk up and down a room lighted with a single candle, so that at one time we have the light full in our eye, and at another are nearly in darkness, is very prejudicial to weak eyes. It is better to place the candle in the middle of the room, in order to illuminate it more uniformly; or, what is still preferable, to hang it higher than the shade of our own body.

Where persons must have a light during the night, t ought to be placed in the next room, or at least within the chimney, that it may be entirely out of sight. If neither of these methods be convenient, we should place it behind, or at the side of the bed, rather than in an opposite direction. For if this be not observed, the light may produce very noxious effects during sleep, even through the closed eye-lids. The same attention is required, to prevent the rays of the sun or moon from striking the eyes of the person asleep, either directly or by reflection from the opposite wall. As some men are known to sleep with their eyes open, it would be advisable to employ somebody to shut them, that they may not suffer by the accidents before mentioned.

Those who have weak eyes should carefully avoid strong fires, and even hot rooms; for heat still more exhausts the eyes, already suffering from want of moisture. Indeed it is highly probable that the weakness of sight and early blindness, so common in this country, are in a great measure owing to the bad custom of hastening to the fire-side when coming from the cold air, or from the dark streets.

Weak eyes must be indulged with shady places, and protected against every dazzling object. But green arbours should be avoided, on account of the twinking light occasioned by the agitation of the leaves. The exercise of the eyes ought never to be suspended for any considerable length of time: too much rest is hurtful; and to sit whole hours of the evening without candle-light, is extremely pernicious. It is, however, very soothing to the eyes to let them rest for half an hour during twilight. This should teach us to adopt the general salutary rule, to rise with the dawn, and likewise gradually to accustom ourselves to the artificial light of the evening. For a similar reason, those who complain of weakness of sight ought not to resort to places artificially lighted in the day-time, such as theatres, &c. Even the soundest eyes must inevitably suffer by a sudden change from light to darkness, or from darkness to strong light.

If it become necessary to let the eyes rest, we should by no means press the eye-lids too closely together, which if long continued, is very hurtful. So is strong and frequent friction, which powerfully stimulates the nerves and injures the eyes. If we sit for any length of time with closed eyes, we are easily overtaken by sleep, which, though beneficial, ought to be of short duration, that the eyes may not be over-heated. As a protection against injury from external causes, it is most useful to wear a shade, at such a distance as may allow the eye free motion, and not keep it too warm. The green veils worn by ladies are, in this respect, well calculated to prevent dust from entering the eye, as well as to protect it against cold winds, and the burning rays of the sun.

All glasses used to assist vision appear to require some effort of the eyes; and, unless they be indispensable, they should never be employed by persons at an early time of life. In proof of this assertion, I shall only remark, that by looking through a window of the finest glass, we feel our eyes much more fatigued than if the window had been open. This is particularly the case in looking through coach-windows, where additional injury is occasioned to the eyes by the motion of the carriage, and the impure air arising from respiration. Green curtains in coaches are therefore judicious and proper.

Of all the remedies for preserving weak eyes, bathing them in pure cold-water is the most refreshing and strengthening. But this ought not to be done above three or four times a day; otherwise it has a tendency to give an unnecessary stimulus to the eyes. Nor should it be done immediately after rising in the morning, but only when the moisture, which during sleep is deposited even in the soundest eyes, is nearly evaporated. This partial cold bath may be repeated after dinner and supper, at which times the eyes stand as much in need of it as in the morning. Not only the eyes, but also the brow, the region behind the ears, sometimes the whole head, and particularly the upper lip, which is closely connected with the optic nerves,

hould be bathed or washed as well as the eyes. In he morning the eye ought not to be precipitately, but radually exposed to the water; and the washing hould be expeditiously performed. In drying or iping the eye, we should proceed gently and with aution; and immediately after washing we should articularly guard against any rays of light, as well as very kind of exertion.

A large piece of sponge, saturated with water, so hat it may not too soon become warm, is far prefer-ble in these partial bathings, to the warm, smooth and or towel. The sponge should be frequently dip-ed into cold water, and occasionally allowed to lie r a few moments on the eye, with the head bent ackward, while the eye is gently moved and cau-ously opened during the operation.

The bathing of the eyes in small glasses is less ad-ntageous, as the water very soon turns lukewarm, nd is perhaps too cold when suddenly renewed. hese glasses occasion another disagreeable sensation, their edges will in some degree attach themselves to e skin, not unlike cupping-glasses.

The cold bath, under certain restrictions, is useful; it invigorates the whole body, and consequently engthens the eyes; but in some cases it may injure em, by propelling the blood too forcibly from the ad. This can in a great measure be prevented by t only washing the eyes and the whole head previ-sly to entering the bath, but also by diving the whole ce and head under water.

Further Observations on Clothing.

(Continued from Page 141.)

To avoid ridicule, people comply with the prevail-g fashions of the day; but if this compliance be pre-dicial to health, it shews great weakness of mind to carried away with the stream; and those who have e boldness to oppose them when injurious to health, y have the satisfaction to introduce dresses at once

healthful and elegant. Happily, in this respect, people begin in some degree to think for themselves; and that rigid adherence to the mode, which heretofore dressed both men and women, does not now disgust us.

The property of receiving, repelling, and emitting heat and cold, depends not only on the substance from which our dress is made, and its shape or form, but also on the colour. Clothes of a light colour the least attract heat, and therefore are the most proper in hot weather. Substances of a very smooth and shining surface strongly reflect the rays of the sun, which cannot penetrate through them; hence the advantage, in hot climates, of hats covered with oil-skin, particularly of a green or white colour.

Animal Wool produces a moderate warmth, on account of the stimulus and gentle friction it occasions on the skin. By its use, animal electricity is elicited, perspiration promoted, the perspired humours are absorbed, and again easily evaporated, on account of the porous nature of this substance.

Linen Cloth, by diminishing the elasticity of the skin, increases the internal warmth, and at the same time, from its compactness, retains too readily the perspirable humours, and does not part with them so readily as wool. Soiled shirts therefore produce a disagreeable cooling sensation, and stop perspiration, especially if made of thick strong cloth, and not regularly changed every day.

Silk occasions a gentle stimulus, but does not sufficiently promote perspiration, though it attracts less humidity from the atmosphere than linen.

Oil-skin, or wax-cloth, increases perspiration in an uncommon degree, but does not admit it to evoparate again, and is therefore applicable only in certain diseases.

Cotton stands in the middle between animal wool and linen; it increases warmth and perspiration, imbibes and retains the perspired humours, to the injury of the wearer, and, like wool, readily attracts infectious matter.

All kinds of *Fur* are more noxious than useful, both

ith respect to their structure and constituent parts. hey contain many alkaline and oily particles; they e generally too compact and unequal on the surface; ey too much stimulate and increase perspiration, by romoting the access of humours to the skin; they do ot allow the perspirable matter to escape, soon ac- uire an intolerable smell, and more than any other bstance attract and retain contagious effluvia. Ex- erience informs us, that nations who dress in fur, par- cularly in hot countries, are frequently exposed to seases, owing to a want of cleanliness and free per- piration; such are the putrid fevers of Hungary, and e plague among the Turks.

We ought, therefore, to chuse a dress agreeable to e season and weather, as well as to the constitution the body. Woollen clothes are the most proper in ring, autumn, and winter; because they moderately arm the body, without weakening it by abstraction.

In summer, most people are accustomed to wear in clothes, which are scarcely proper in our change- le climate. It is not, in that season, advisable to ke much exercise in thin dresses, particularly in the at of the day. Nor should we venture to wear such othes early in the morning, when the air is cool, and e pores of the skin have been dilated by the warmth the bed;—but still less in the evening, when the at of the day has so much opened them, that perspi- tion may be easily checked, and health much injured.

Animal wool seems to recommend itself to us, as perience proves, that when worn next the skin, it has disputable advantages over all other substances. or, 1. Flannel is but a slow conductor of *external* heat the body, and it the more easily attracts *internal* at, and allows it to evaporate the more readily, as it more porous than any other texture. 2. A sultry mosphere is extremely troublesome, particularly here great heat is combined with moisture, the hu- dity checking perspiration, and at the same time nducting too many aqueous particles to the absorbent ssels from without. Here then flannel is of incom- rable service, since it keeps the vessels of the skin

constantly open, causes them to perspire freely, and admits but a very small degree of external moisture.

The principal good effect of flannel, however, is from its gentle friction on the skin, by which it opens the pores. We must not imagine, that flannel *of itself* heats more than linen or cotton; for it is not the heat which occasions inconvenience, but the circumstance of the perspirable matter adhering to the skin. In flannel, we may perspire without danger, and undertake any exercise of the body without disagreeable sensations; not so, when linen remains wet on the skin. If we take violent exercise in flannel, perspiration is necessarily increased, but the perspired matter is communicated through the flannel to the atmosphere, and the skin remains dry, warm, and comfortable. If we take the same exercise in linen shirts, perspiration is indeed also increased, but the perspired matter is not imparted to the atmosphere, but is inspissated in a fluid state, and remains in contact with the skin.

Another advantage which flannel possesses over linen and cotton is, that people perspiring profusely in flannel shirts, may safely venture into the open air, and will not easily catch cold, because flannel does not absorb the perspired humours. If we do the same in linen shirts, the skin will soon be wetted by perspiration, which will occasion a sensation of coolness and shivering; in most cases a violent cold, and very frequently an inflammation of the lungs, will be the consequence. This danger arises from the fluid matter settling on the skin; and we may be still more severely injured, if we at the same time expose ourselves to the action of the wind, or a current of air.

Numberless writers, both ancient and modern, confirm the good effects of flannel next the skin: of these I shall only quote Count Rumford, who says, in one of his earlier Essays, that he is convinced of the utility of flannel shirts in all seasons; that he has worn them in all climates, in the warmest apartments, and in the most fatiguing exercise, without the least difficulty; that he was relieved, by the use of flannel, from a pain in his breast he had been frequently subject to,

and never since knew an hour's illness; and that nothing exceeds the agreeable sensation of this dress, when people have been once accustomed to it.'

Indeed after the praises bestowed upon flannel by so many respectable authorities, and by men who from long experience have ascertained its beneficial effects, it is surprising, that any individual, however great his reputation, should be whimsical or hardy enough to dispute its *general* salubrity, merely with a view to establish a favourite hypothesis.

It has been objected, that flannel worn next the skin is debilitating, because it too much increases perspiration; but this is not founded in truth, since perspiration, *as long as the skin remains dry*, never can be hurtful nor immoderate. Such mistaken notions have been propagated, from the circumstance, that flannel is frequently ordered by physicians, to increase perspiration in some diseases, where it is necessary to the recovery of the patient: *but the copious perspiration is then the effect of the disease, and not of the flannel.*

The uneasy sensation occasioned by flannel is of very short duration. That it may make the skin red and inflamed, if it be too much rubbed and scratched, cannot be denied; but it is a palpable falsity that it produces cutaneous eruptions. It has quite a contrary effect; as it preserves the pores open, increases perspiration, and thus removes the cause of cutaneous diseases, which arise chiefly from a checked and irregular state of excretion by the pores.

In answer to another objection against the wearing of flannel, it is certain, that a flannel shirt, or waistcoat, may preserve the body as clean, and much cleaner, than linen, *if as frequently changed.**

* This preliminary condition, I presume, sufficiently answers the objection of a learned writer, according to whom a flannel dress requires more frequent change than linen, *to promote cleanliness*, and consequently would produce a contrary effect among the lower classes of people.—Yet, I am of opinion that it would not be advisable, at least to children and young persons, *universally* to adopt a woollen texture for the covering of the skin. It is, however, a *salutary* dress to those who, in all probability, have commenced the second half of their life; to all cold or phlegmatic temperaments; to all who lead a sedentary

Wool, on account of its rough surface, is more calculated to absorb infectious morbid matter, than a more smooth substance; but we have nothing to apprehend from flannel on the skin, and under the usual dress. I am rather of opinion, that it is a better preventive against contagion than any other; because while it encourages perspiration it at the same time removes the inhaled poisonous particles, particularly if, in cases of danger, perspiration be increased by other suitable means. Hence people wearing flannel on their skin, never suffer from cold. I have been informed, that the manufacturers in the different foundries of Birmingham, as well as at the iron-works of Cole-brook-Dale and Kettley, in the most intense heat, wear no other but flannel shirts; and that without these it would be impossible to prevent continual colds, and the most fatal diseases. With this beneficent intention, the British soldiers on the Continent, some years ago, were furnished with flannel waistcoats, by the liberal subscriptions of individuals, which, I am convinced, saved many lives that must otherwise have fallen victims to the effects of a cold and moist climate.

These advantages strongly recommend the use of flannel to every one anxious to preserve his health, but particularly to those who are exposed to all kinds of weather, as husbandmen, fishermen, mariners, soldiers, and travellers. As flannel is suitable to all seasons; as it requires no great changes in the under-dress; and as it is a tolerable substitute for a deficiency of upper-dress; it deserves every attention among those who provide for orphans and poor-houses, as well as for the indigent of every description. Many desperate diseases in the legs of the common people, many inflammations

life; to individuals subject to catarrhs, or frequent colds, gout, diarrhœa, and partial congestions of the blood; to all nervous patients, and convalescents from severe chronic disorders; to persons who are too susceptible of the impressions of the atmosphere; and lastly, in such climates and pursuits of life as are exposed to frequent and sudden changes of air.—It is only hurtful to those, who are already subject to violent perspiration, or troubled with cutaneous eruptions, and who cannot afford to change their under dress as often as is consistent with cleanliness.

f the throat, breast, and lungs, might be prevented, nd many lives saved, both of children and adults, if annel were more generally worn.

Those who complain of cold legs and feet, are never omfortable nor healthy: if they could be prevailed pon to wear worsted stockings, and flannel drawers, ney would acquire a quicker circulation of the blood n the lower extremities, and prevent many indisposi- ons, from which, without this precaution, they can- ot escape. Most valetudinarians and patients slight his advice, because they imagine that the wearing of annel is attended with uneasy sensations. This idea, owever, ought not to prevent them from giving it a ir trial; for the uncomfortable feeling continues only r a few days, and this trifling sacrifice cannot be ompared with the salutary effects which flannel next he skin almost uniformly produces. By continuing sufficiently long, and changing it frequently, the most bstinate gouty and rheumatic complaints have often een removed, and many other imminent dangers avert- d. Children afflicted with rickets, cannot be better elieved than by a proper diet, and flannel shirts, which ay be daily fumigated with amber, petroleum, or ther fragrant substances; a process which has been equently productive of the most beneficial effects.

THE ORGANS OF SENSE.

The organs by which the sensitive powers of the erves can be excited from without, are called the nses; in contradistinction to the *internal* faculties, ch as imagination, memory, attention, and the various ffections of the mind. The number of these has been itherto limited to *five*, or, it may be said with more pro- riety, that they are five modifications of *one* sense.

This universal sense, which in a manner forms the asis of all others, is that of *Touch*. If we abstract om the difference subsisting in the structure of the rgans, the other senses are subservient to that of

touch, and little more than a variety or modification of it. All the senses agree in this, that they may be improved by exercise, or depraved by neglect: Nature has not formed them to the same degree of perfection in every individual. The loss of one sense is, in general, partly supplied by the greater perfection of another; yet it is equally true, that exercise and attention are the principal sources of this improvement.

In the most perfect state of our senses, we are liable to be misled by them into many errors and mistakes; but the sense of touch or feeling is least liable to deception, while that of sight is the most uncertain. The order in which we shall consider the five senses, hitherto admitted as being distinct from one another, is the following: viz. 1. *Touch;* 2. *Sight;* 3. *Hearing;* 4. *Smell;* and 5. *Taste.*

The *first*, namely, that of *Touch*, comprehends not only the sensation which is excited by any particular impression, but also that change which external objects produce on the skin, and particularly on the ends of the fingers. It is in the latter, and more limited meaning, that I now consider the sense of touch.

The sense of touch can be improved, by practice, to an astonishing degree. There are many examples of blind people having attained so great a perfection of this sense, that they could with accuracy distinguish the difference of coins, of metals, and even of colours, merely by the touch. A blind man has been known to take a watch to pieces, to clean it perfectly, and to put it together again, without any other assistance, but that of the instruments commonly used, and the exquisite feeling of his fingers.

When the nervous papillæ are pressed against external objects, the nerves receive a kind of vibration, which is communicated to their branches, and thence to the brain. Thus we are enabled to feel the hardness, roughness, moisture, warmth, gravity, figure, size, and even the distance of bodies. But, that this feeling may not become painful, the Creator has provided another cover, namely, the scarf-skin, which serves the important purposes of secluding the air from the

ue skin, and preventing the body from being too much ried.—The nails increase the energy of touch, and nder the sense of it more acute, as they resist the ressure of external objects.

The *second* of our senses, though less essential to nimal life, is more conducive to our welfare and hap- iness. Without *sight* we cannot justly contemplate ne wonders of creation, and existence is deprived of s greatest charms. An anatomical description of the yes would lead us too far from the object of these inqui- es, and would not be intelligible without a more par- cular analysis and demonstration than our limits low.

In the sense of sight, we are far excelled by most of ne lower animals. Eagles and hawks, in particular, escry their prey, when beyond the reach of our sight, nough aided by a telescope. Yet in men, also, this nse may be wonderfully improved, and it has been sserted by the celebrated *Baron Trenk*, that during is long captivity in the state-dungeon at Magdeburg, e had so much improved his sight, that he could see ne mice traversing his gloomy cell in the middle of the arkest night.

The operations of sight are performed in the most ccurate manner. By the structure of the eye, no rays f light can pass into it, unless emitted within an angle ot exceeding 90 degrees. Every thing here is regu- ted upon optical principles, sensation excepted. This situated in the *retina*, a membrane having the form f a net, and being, as it were, the mirror by which xternal objects are represented to the mind. If this irror be destroyed, as is the case in *gutta serena*, our ght is irrecoverably lost.

All vision consists in the refraction of the rays of ght, by means of the crystalline humour, till all the ys are concentrated into one distinct image on the tina. The rays of light, while they pass through the rched surface of the *cornea*, or the horney skin, are roken and brought in contact with each other; and is is still farther promoted, while they pass through ne more dense crystalline lens. They then converge

at the spot where the vitreous humour is contained: here they again diverge, once more come in contact, and finally collect in as many points as are represented by the external object. This image, which is depicted on, and stimulates the retina, is communicated to the mind, and produces the sensation of sight.

It is partly owing to the above-mentioned refraction, partly to the constant and uniform reference to the internal sense, that in the act of vision we see objects in an upright posture before us, though they are properly imprinted on the retina, in an inverted posture. By this admirable mechanism, all objects are invertedly presented to the eye, so that we cannot err in this respect, since the relation and proportion of things uniformly remain the same.

But it will be asked, how does it happen, that with two eyes we see only one object? This question is easily answered by those, who inform us, that with two nostrils we are sensible of only one particular smell, and with two ears we hear but one distinct sound: that a similar external stimulus, in similar nerves, will always produce the same internal sensation, and that accidental deviations or diseases only, can affect this principle. Yet the explanation now given is insufficient, as it proceeds from analogical reasoning.

If we wish to form a clear conception of this faculty, we must above all things direct our attention to the *axis* of vision, or that imaginary line, which we draw in a strait direction from the centre of the eye to the object, and which is prolonged before and behind that organ. We must next advert to the situation in which the eyes are placed. They do not lie perfectly straight in their sockets, but somewhat in an oblique direction towards the nose. If, then, we prolong, for a short space only, the axis beyond the eye, we shall soon find, that the two imaginary lines meet in a certain point. This is called the *focus*, or the point of vision—the termination of the external rays of light.

If a person be able to see to a great distance, his lines of vision intersect each other at a greater distance from the eye, and consequently his focus is farther re-

moved from it. This defect is called *presbyopia*, or ar-sightedness, and may be remedied by means of convex glasses; as the opposite evil, which is called *myopia*, or short-sightedness, (proceeding from too great convexity,) may be relieved by concave glasses.

It farther deserves to be remarked, that the optic nerves cross each other in the brain, and that we are accustomed, from our infancy, to see only one object at a time. Hence children should be so placed in bed, that they may not learn to squint, or that the eyes may not be directed upwards and outwards, but rather downwards and inwards.

Every one must have observed, that upon entering suddenly from a very dark place into bright sunshine, he could scarcely see any object, felt pain in the eyes, shed involuntary tears, or sneezed. This temporary deprivation of sight is owing to the pupil of the eye being dilated in a dark place, and suddenly contracted again at the approach of light.

To conclude the account of the sense of sight, I must remark, that the representations of the mind scarcely display their influence on any other of the senses, to so extensive a degree, as they do upon this: hence we imagine we see a fiery ring, when a burning coal is swiftly moved in a circle.

By the next sense, namely, that of *Hearing*, we perceive the vibrations of the air, which occasion sound. For this purpose, our ears are formed partly of cartilages, and partly of bones, in order to communicate these vibrations to the auditory nerves, and thence to the brain. This sense also is more acute in the lower animals, than in the human species.

By means of the teeth, and other bones of the head, sounds may be conducted to the auditory nerves. There is, however, a method of communicating sounds to the deaf, with better success than by the common ear-trumpets, which instruments at length entirely destroy that sense. This is effected by means of a cylindrical rod or tube of ivory, or any similar hard substance: the rod may be from six to twelve inches long and upwards, and from a quarter to half an inch in diameter.

A gentleman who was quite deaf, was, with the assistance of such a cylinder, enabled to hear the softest notes distinctly, and to enjoy all the pleasures of music.

Our *fourth* sense is that of *Smell.* It is nearly related to the sense of taste, probably from the great similarity of structure in the organs of these two senses, and their vicinity to each other. This is attended with the manifest advantage, that men and animals are generally enabled to discover, without danger, any unwholesome food. The functions of this sense are exercised by the nose, and chiefly by the mucous membrane which lines that organ; this membrane is exquisitely sensible, and covered with hair towards the lower part of the nostrils, to prevent any impurities from ascending too far.

The principal organ of *Taste* is the tongue. This organ is provided with innumerable nerves, which terminate in certain warts, or papillæ, of a different size and figure; some of them pointed, others oblong, and others fungous. These nervous papillæ are the peculiar seat of the sense of taste, or the palate. But, to taste any thing whatever, either the tongue should be moist, or the substance applied to the tongue should contain moisture. Such bodies as contain no saline particles excite no kind of taste whatever.

The different degrees of taste depend on the greater or less sensibility of the nervous papillæ before described, as well as on the quality of the saliva, in a more or less healthy state of the body. If our nerves be blunted by smoking tobacco, by too highly-seasoned food, by the copious use of spirituous liquors, by age, or other causes, we cannot reasonably expect to possess the same sensibility of taste, as in the morning of life.

The senses, then, are those organs, by means of which the mind perceives or feels external objects. Although some animals enjoy particular senses more acutely than man, yet his senses are more comprehensive, and he is amply conpensated by the extensive use he can make of them.

CATALOGUE OF DRUGS.

The doses specified in the following List are such as are usually administered. They should therefore be increased or diminished according to the strength of the patient, and the age, by the following Rule:

Two-thirds of the Dose, from the age of 14 to 16.—One-half, from 7 to 10.—One-third, from 4 to 6.—One-fourth, to one of 3 years.—One-eighth, to one of a year.

It is customary to repeat the Dose of an Aperient Medicine about every three Hours till it operates, or to have recourse to a Lavement, which in cases of obstinate Costiveness is often preferable.

WEIGHTS AND MEASURES.——20 *Grains make* 1 *Scruple*—3 *Scruples* 1 *Drachm*—8 *Drachms* 1 *Ounce*—12 *Ounces* 1 *Pound.*

MEDICINES.	DOSES. Adults.	Children from 2 to 4 years.	Proper Vehicle, &c.	Effects, &c.	Diseases—proper for
Æther	30 dps. to 1 dm.	8 to 10 drops	cold water	antispasmodic	asthma, cramp, & flatulence
Æthiop's mineral.....	15 to 30 grains	5 to 10 grains	honey, twice a day ..	alterative	scald head, cutan. foulness
Almonds, emulsion of..	a wine-glassful	1 to 2 ta. spfs.	every 2 or 3 hours ..	demulcent	strangury, cough
——— oil of	1 to 3 drms.	30 dps. to 1 dm.	honey, ditto.....	ditto	ditto, ditto
Aloes, Socotrine	10 to 20 grains	3 to 6 grains	in pills	purgative	obstinate costiveness
——- tincture of	3 to 6 drms.	1 to 2 drms	water	ditto and vermifug..	ditto and worms
Alum powder	3 to 10 grains		ditto, 3 times a day	astringent	flooding, dysentery
Amber, rectified oil of	8 to 10 drops	1 to 3 drops	honey, twice a day	antispasmodic	hysteric fits, ho oping cough
Ammoniac gum	10 to 15 grains		in pills, ditto	expectorant	chronic cough, asthma, &c.

MEDICINES.	DOSES. Adults.	Children from 2 to 4 years.	Proper Vehicle, &c.	Effects, &c.	Diseases—proper for
Ammoniac gum, milk of	3 table-sp.fuls	a dessert-sp.ful	2 or 3 times a day	expectorant	chronic cough, asthma, &c.
Antimonial powder	from 3 to 5 grs.	1 to 3 grains	honey	sudorific	inflam. fever, pleurisy, &c.
—— wine, (as an emetic)	2 to 4 drms.	1 to 3 drms.	water	emetic	
—— wine, (as an alterat.)	12 to 20 drops	4 to 8 drops	barl. water, twice a day	sudorific	St. Anth. fire, cutan. foulness
Aromatic confection	15 to 30 grains	4 to 8 grains	cinnam. wat. 2 or 3 do.	astringent and cordial	purging, cramp in the stom.
—— spices	5 to 10 grains	2 to 3 grains	water, ditto	stomachic	indigestion, flatulence
Asafetida emulsion	4 to 8 drms.	2 tea. sp. fuls.	every 3 or 4 hours	antispasmodic	hyster. asthma, hoop. cough
—— tincture of	30 to 60 drops	8 to 12 drops	water, ditto	ditto	ditto, ditto, ditto
—— volat. spirit of	20 to 40 drops	4 to 8 drops	water, ditto	ditto	ditto and fainting
—— pill	10 to 15 grains		in pills, twice a day	ditto	ditto, ditto
Balsam of copaiva	20 to 40 drops	6 to 8 drops	in honey, ditto	diuretic and balsamic	whites, gleets, gravel
—— of Peru	5 to 10 drops		ditto, ditto	stimulant	flatulence, asthma, gleets
—— traumatic	20 to 40 drops		ditto or sugar, ditto	ditto	ditto
—— Tolu, tincture of	30 to 60 drops		ditto or water, ditto	ditto and pectoral	ditto, and chronic cough
Bark, Peruvian, powder	20 to 60 grains	10 to 15 grains	mint-wat. 4 or 6 times	tonic	ague, indigestion, weakness
—— decoction of	3 to 4 ta. sp. fs.	1 to 2 ta. sp. fs.	3 or 4 times a day	ditto	relaxation and weakness
—— essential salt of	5 to 10 grains	2 to 3 grains	Port wine, ditto	ditto	ditto, ditto
—— tincture of	2 to 4 drms.	40 to 60 drops	water, ditto	ditto	ditto, ditto
—— ditto, Huxham's	2 to 4 drms.	40 to 60 drops	ditto, ditto	ditto	ditto, ditto
—— ditto, volatile	1 to 2 drms.	10 to 20 drops	ditto, ditto	ditto	indigestion, heartburn
Basilic powder	20 to 25 grains	6 to 8 grains	honey, twice a week	vermifuge & cathartic	worms, costiveness, dropsy
Calomel	1 to 2 grains	half to 1 grain	in a pill, twice a day	alterative	ven. disease, foul ulcers, &c.
Camphire	2 to 4 grains	1 to 2 grains	ditto, ditto	antispasmodic	hoop. cough, convulsive fits
—— Julep of	2 to 4 ta. sp. fs.	3 to 4 drms.	three times a day	ditto and febrifuge	nervous fever, ditto ditto

Canella alba, powder of	4 to 8 grains		mint-water; 3 tim. a day	stomachic	indigestion, flatulence
——— tincture of	2 to 3 drms.		water, ditto	ditto	ditto, ditto
Cardamoms, tincture of	2 to 3 drms.		ditto, ditto	stimulant	ditto; ditto, and cramp
——— comp. ditto	2 to 4 drms.		camomile-tea, ditto ..	stomachic	ditto, ditto
Castor, Russian powd. of	5 to 10 grains	3 to 5 grains	camphorated julep, do.	antispasmodic	convuls. fits, nervous irritab.
——— tincture of	1 to 2 drms.	15 to 30 drops	ditto ditto ditto ..	ditto	ditto, ditto
Castor oil	4 to 8 drms.	3 to 4 drms.	mint-water	purgative	colic, costiveness
——— cold expressed	4 to 10 drms.	3 to 5 drms.	ditto	ditto	ditto, ditto
Cascarilla powder	10 to 20 grains	3 to 6 grains	ditto, 3 times a day..	stomachic	indigestion, weakness
——— tincture of ..	1 to 3 drms.	20 to 30 drops	water, ditto	ditto	ditto, ditto
——— volatile ditto	40 to 60 drops		ditto, ditto	ditto	gout, flatulence, heartburn
Catechu, tincture of ..	1 to 2 tea-sp. fs	10 to 20 drops	mint-water, ditto	astringent	chronic looseness, flooding
Chalk, prepared	10 to 15 grains	4 to 6 grains	ditto, 4 times a day..	ditto	looseness, acidity
Camomile flowers, powder of	10 to 20 grains	6 to 10 grains	mint-water, 2 or 3 times a day	stomachic & vermifuge	indigestion, worms, &c.
——— tincture of and ginger	10 to 40 drops		water; 3 or 4 tim. a day	stomachic	gout, cramp in the stomach
Cinnamon powder	5 to 10 grains	2 to 4 grains	ditto, 3 times a day..	ditto	indigestion, flatulence, &c.
——— essence of ..	3 to 10 drops	1 drop	water	stimulant	flatuleney, colicky pains
——— tincture of ..	3 to 4 drms.	20 to 30 drops	ditto, ...	astringent	looseness, &c.
Columbo powder	10 to 20 grains	3 to 5 grains	mint-water; 3 tim. a day	stomachic	indigestion, chronic loosen.
——— tincture of ..	1 to 3 drms.	10 to 20 drops	ditto, ditto	ditto	ditto ditto
Crab's claws, prepared	15 to 20 grains	5 to 10 grains	do. every 3 or 4 hours	astringent	purging, dysentery, acidity
Cretaceous powder with opium	10 to 20 grains	5 to 8 grains	ditto, ditto	ditto	obstinate purging & dysent.
Contrayerva powder ..	20 to 40 grains	6 to 10 grains	water, ditto	sudorific	recent colds
——— compound	30 to 40 grains	8 to 12 grains	mint-water, ditto	ditto and astringent ..	purgings of children
Cream of tartar	1 to 4 drms.	20 to 30 grains	honey, every morning	aperient and alterative	infla. erup. of the skin, &c.

MEDICINES.	DOSES. Adults.	Children from 2 to 4 years.	Proper Vehicle, &c.	Effects, &c.	Diseases—proper for
Colocynth pill, comp.	10 to 20 grains	4 to 8 grains	occasionally	active purgative	costiveness
——— extract	10 to 15 grains	4 to 6 grains	ditto	ditto	obstinate ditto, or colic
——— powder	10 to 15 grains		ditto	ditto	ditto
Dover's powder	10 to 20 grains	3 to 6 grains	in water	sudorific and anodyne	rheumat. recent colds, &c.
Elixir of vitriol	14 to 20 drops	5 to 6 drops	ditto, twice a day	stomachic	indigest. flatulence, vomit
Electuary, lenitive	2 to 3 drms.	half to 1 drm.	occasionally	gentle aperient	costiveness
Epsom salt	4 to 8 drms.	2 to 3 drms.	mint-water	ditto	ditto
Foxglove powder	half to 3 grains		ditto .. [4 times a day	viol. purgative & emetic	dropsy
——— tincture of	10 to 40 drops		decoc. of liverwort 3 or	sedative	consumption of the lungs
Gentian, tincture of	1 to 2 drms.	12 to 30 drops	water, ditto	stomachic	indigestion, flatulence, &c.
——— extract of	5 to 10 grains		in a pill twice a day	ditto	ditto ditto
Ginger powder	20 to 60 grains		water, ditto	stimulant	gout, indigestion, flatulence
——— lozenges of	3 or 4		twice a day	ditto	flatulency
——— tincture of	1 to 2 drms		water, ditto	ditto	ditto
Guaiac gum	5 to 15 grains		in pill, ditto	ditto and sudorific	chronic rheumatism, gout
——— volatile tincture	1 to 3 drms.		water, 2 or 3 tim. a day	ditto, ditto	ditto, ditto
Hartshorn, spirit of	20 to 40 drops	5 to 8 drops	ditto, ditto	stimulant	hysterics, convul. heartburn
———— burnt, prepar'd	20 to 40 grains	6 to 10 grains	mint-water, ditto	astringent	purging, acidity, heartburn
Hoffman's anodyne lin.	30 to 40 drops	6 to 10 drops	water, ditto	antispasmodic	nerv. fever, asthma, hysterics
Hemlock, powdered	half to 3 grains	1 to 2 grains	mint-water, ditto	sedative	hooping cough, cancer
——— extract of	2 to 3 grains	1 to 2 grains	ditto, or pill ditto	ditto	ditto, ditto
Hiera picra	15 to 20 grains	4 to 8 grains	mint-water	purgative & stomachic	costiveness, flatulency
——— tincture of	2 to 4 drms.	30 to 40 drops	water	ditto ditto, & vermifu.	ditto, ditto, and worms
Jalap powder	20 to 30 grains	5 to 10 grains	mint-water	active purgative	costiveness

Ipecacuan powder	20 to 30 grains	5 to 10 grains	water	emetic	
——— wine	4 to 8 drms.	2 to 3 drms.	ditto	ditto	
Iron—see Steel					
Kino gum, tincture of	2 to 3 drms.	15 to 20 drops	mint-water, 3 or 4 times	astringent	looseness
Lavender, comp. spirit of	30 to 80 drops	10 to 20 drops	water	cordial	fainting, or lowness of spirits
Logwood, decoction of	a wine-glassful	1 to 2 ta. sp. fuls	3 or 4 times a day	astringent	looseness, dysentery
——— extract of	10 to 20 grains	3 to 4 grains	cinnam. water 3ti. a day	ditto	ditto, ditto
Madder powder	30 to 60 grains		mint-water, 2 or 3 ditto	deobstruent	chlorosis, or green-sickness
——— extract of	10 to 20 grains	4 to 10 grains	ditto, ditto	ditto, and tonic	ditto, and scrophula
Magnesia	20 to 40 grains	5 to 10 grains	mint-water	absorbent	heartburn and acidity
——— calcined	ditto	ditto	ditto	ditto	ditto, ditto
Manna	3 to 6 drms.	1 to 2 drms.	ditto, or tea	gentle aperient	costiveness
Mercurial pill	6 to 12 grains	2 to 4 grains	in pills twice a day	alterative	venereal disease
Mercury calcined	1 to 2 grains	quarter grain	in a pill, ditto	ditto	ditto
——— with chalk	5 to 10 grains	3 to 4 grains	honey, ditto	ditto	scald head. cutaneous foul-[ness, &c.
Misletoe powder	20 to 60 grains	8 to 12 grains	mint-water, 3 tim. a day	tonic	epileptic fits
Mithridate	15 to 20 grains	5 to 8 grains	ditto, ditto	astringent	purging, dysentery
Musk	5 to 40 grains	2 to 5 grains	ditto, ditto	antispasmodic	convul. locked jaw, &c.
Muriatic acid	10 to 20 drops	4 to 6 drops	water, twice a day	alterative	scrophula; cutaneous erupt.
Myrrh powder	5 to 10 grains	2 to 4 grains	mint-water, ditto	strengthening	green sickness, weakness
——— tincture of	1 to 2 drms.	10 to 15 drops	water, 2 or 3 tim. a day	ditto	ditto, ditto
——— emulsion	2to3 ta. sp. fuls	2 to 3 drms.	2 or 3 times a day	ditto, and expectorant	ditto, do. & chronic cough
Natron, prepared	5 to 10 grains	2 to 3 grains	mint-water, ditto	alterative	scrophula, heartburn cancer
—— super-carbonated	5 to 10 grains	2 to 4 grains	water, ditto	ditto	ditto, ditto, and vomiting
Nitre powder	5 to 20 grains	2 to 4 grains	barley-water, ditto	diuretic and febrifuge	strang. heat of urine, fever
—— sweet spirit of	20 to 60 drops	8 to 10 drops	ditto, ditto	ditto, ditto	ditto, ditto, ditto
Nitric acid	12 to 20 drops	3 to 5 drops	water	tonic	diabetes, scrophula

Medicines.	Doses. Adults.	Children from 2 to 4 years.	Proper Vehicle, &c.	Effects, &c.	Diseases—proper for
Nutmegs, spirit of	4 to 6 drms.	1 to 2 drms.	water	carminative	flatul. cramp in the stomach
Opiate confection	10 to 20 grains	3 to 6 grains	bolus	ditto and opiate	purging, gripes, &c.
Opium, purified	1 to 2 grains	quarter grain	pill	anodyne	restlessn. acute pain, asthm.
——— tincture of	10 to 30 drops	3 to 5 drops	mint-water	ditto	ditto, ditto, ditto
Oyster-shells, prepared	10 to 20 grains	5 to 8 grains	ditto, 4 times a day	absorbent & astringent	purg. acid. in stomach, &c.
Paregoric elixir	3 to 4 drms.	15 to 20 drops	barley-water, ditto	anodyne	cough, asth. pain in the bow.
Peppermint, essence of	3 to 6 drops	1 to 2 drops	water	carminative	colicky pains, flatulency, &c.
Poppies, white, extract	5 to 10 grains	1 to 3 grains	in a pill	anodyne	spasms, acute pain, cough
——— syrup of	1 to 4 drms.	tea-spoonful	water	ditto	ditto, ditto, ditto
Quassia, tincture of	30 to 60 drops	10 to 12 drops	ginger-tea, 2or 3ti. a day	stomachic	indigestion, flatulency
Rhatany powder	10 to 40 grains	5 to 8 grains	mint-water, every 2 hrs.	tonic	ague, diabetes
——— tincture of	2 to 4 drms.	30 to 40 drops	mint-water, 3 tim. a day	stomachic	indiges. relax. whites, &c.
——— comp. ditto	2 to 4 drms.	30 to 40 drops	ditto, ditto	ditto and cordial	ditto, ditto, ditto
——— aromatic ditto	2 to 4 drms.	30 to 40 drops	ditto, ditto	ditto, ditto	ditto, ditto, ditto
Rhubarb powder	20 to 30 grains	5 to 8 grains	in mint-water	aperient	costiveness
——— tincture of	4 to 6 drms.	1 to 2 drms.	ditto	ditto, and carminative	ditto, colic, &c.
——— bitter ditto	2 to 3 drms.	3 to 4 drops	wat. once or twice a day	aperient and stomachic	indigestion, flatulence, &c.
——lozenges with ginger	2 or 3	one	twice a day	stomachic	ditto, ditto
Rochelle salt	6 to 12 drms.	2 to 4 drms.	mint-water	aperient	costiveness
Roses, infusion of	1 to 2 ounces	3 to 4 drms.	2 or 3 times a day	stomachic & astringent	indigestion, flooding, &c.
—— conserve of	1 to 2 drms.	1 drm.	ditto	ditto, and pectoral	cough
Saffron, tincture of	1 to 2 drms.	30 to 40 drops	water	cordial	lowness of spirits
——— syrup of	2 to 3 drms.	a tea-spoonful	ditto	ditto	ditto
Salt, Glauber's	6 to 12 drms.	3 to 4 drms.	mint-water	purgative	costiveness, &c.

Salt Epsom	6 to 8 drms.	2 to 4 drms.	mint-water	purgative	costiveness
—— Polychrest	1 to 3 drms.	30 to 40 grains	ditto	cooling aperient	feverish heats
—— tasteless	6 to 12 drms.	2 to 3 drms.	in gruel or broth	gentle aperient.....	costiveness, &c.
—— of tartar	8 to 10 grains	1 to 4 grains	mint-water	alkaline	heartburn, rickets
—— of wormwood	ditto	ditto	ditto	ditto	ditto, ditto
Sarsaparilla powder....	20 to 60 grains	5 to 10 grains	ditto, 2 or 3 times a day	alterative	scrophula, &c.
——— comp. decoct.	3 to 4 ounces	1 to 2 ounces	3 or 4 times a day ..	ditto	ditto
Scammony powder	10 to 15 grains	4 to 5 grains	mint-water	strong purgative	obstinate costiveness
——— comp. ditto	15 to 30 grains	5 to 6 grains	ditto	ditto	ditto
—— comp. with calomel	15 to 20 grains	4 to 6 grains	honey	ditto, and vermifuge	ditto, worms and dropsy
Senna, infusion of	2 to 3 ounces	3 to 4 drms.	occasionally.....	purgative	costiveness and worms
——— tincture of	6 to 12 drms.	2 to 3 drms.	water	ditto	ditto, and colic
Soluble tartar	4 to 6 drms.	1 to 2 drms.	mint-water	ditto	ditto, and piles
Spermaceti powder....	1 drm.	20 to 30 grains	honey, 3 or 4 tim. a day	demulcent	recent cough
Spirit, Mindererus's....	half an ounce	1 drm.	mint-water, ditto....	sudorific and cooling	ditto, inflam. fever, pleurisy
—— of vitriol, sweet ..	20 to 40 drops	6 to 8 drops	ditto, ditto	antispasm.& carmin.	nervous debility, flatul.&c.
—— of nitre	15 to 30 drops	6 to 8 drops	barley-water.....	diuretic and febrifuge	strangury, gravel, fevers
—— sal ammoniac	ditto	6 drops	water	stimulant	hysteric and fainting fits
—— sal volatile	20 to 30 drops	ditto	ditto	ditto	ditto, ditto
—— sal. vol. fetid	20 to 40 drops	ditto	ditto	ditto	ditto, ditto
Syrup of white poppies	2 to 4 drms.	1 to 2 drms.	2 or 3 times a day ..	anodyne	coughs, restless. irritat. fev.
——— buckthorn.....	2 to 4 drms.	1 tea-spoonful	mint-water	strong cathartic	costiveness
——— ginger.....	2 to 3 drms.	1 drm.	water	carminative	flatul. cramp in the stom.
Sponge, burnt	20 to 30 grains	10 to 15 grains	honey, twice a day..	alterative	scrophula
——— lozenges of....	1 to 3	one	twice a day	ditto	wen
Squills, powder of	2 to 3 grains		in a pill, twice a day	expectorant & diuretic	dropsy, asth. chronic cough
——— oxymel of.....	2 to 4 drms.	1 drm.	mint-water, ditto....	ditto, ditto	ditto, ditto, ditto
——— tincture of	30 to 40 drops	6 to 10 drops	ditto, ditto	ditto, ditto	ditto, ditto, ditto

Medicines.	Doses. Adults.	Children from 2 to 4 years.	Proper Vehicle, &c.	Effects, &c.	Diseases—proper for
Squills, lozenges of	3 to 6	1 to 2	twice a day	expectorant & diuretic	dropsy, asthm. chron. cough
Steel, muriated tinct. of	10 to 20 drops	3 to 6 drops	water, twice a day	tonic	indig. rickets, worms, &c.
—— wine of	3 to 6 drms.	1 to 2 drms.	ditto, ditto	ditto	ditto, ditto, ditto
—— salt of	1 to 3 grains	half a grain	pill, ditto	ditto	ditto, ditto, ditto
—— powder of	10 to 40 grains	4 to 6 grains	honey, ditto	ditto	ditto, ditto, ditto
—— red sulphate of	3 to 12 drops	1 to 2 drops	water	ditto	ditto, ditto, ditto
Sulphur, flowers of	1 to 2 drms.	20 to 30 grains	honey, once a day	alterative and aperient	cutan. fouln. piles, worms
—— milk of	1 to 2 drms.	20 to 30 grains	ditto, ditto	ditto	ditto, ditto, ditto
Tartar emetic	1 to 3 grains	$\frac{1}{4}$ to $\frac{1}{2}$ grain	water	emetic	
Tin powder	20 to 40 grains	10 to 15 grains	honey, every morning	vermifuge	worms
Tincture of aloes	3 to 6 drms.	1 to 2 drms.	water	purgative	costiveness, worms
—— asafetida	30 to 60 drops	4 to 8 drops	ditto, twice a day	antispasmodic	hysterics, asth. hoop. cough
—— benzoin	15 to 30 drops	6 to 8 drops	honey, ditto	stimulant	flatulence, asthma
—— cantharides	10 to 30 drops	6 to 8 drops	barley-wat. twice a day	diuretic	hooping cough
—— cardamoms	2 to 4 drms.	half a drm.	camomile-tea, ditto	stomachic	indigestion, flatulence
—— compound ditto	2 to 4 drms.	half a drm.	ditto, thrice a day	ditto	ditto, ditto
—— cascarilla	1 to 3 drms.	10 to 15 drops	water, ditto	ditto	ditto, ditto, gout
—— catechu	1 to 2 drms.	15 to 20 drops	mint-water, 3 tim. a day	astringent & stomachic	purgings, relaxation
—— columbo	1 to 2 drms.	10 to 20 drops	ditto, ditto	stomachic	indigestion, weakness, &c.
—— Peruvian bark	2 to 4 drms.	30 to 40 drops	ditto, ditto	ditto	ditto, ditto
—— Huxham's ditto	2 to 4 drms.	30 to 40 drops	ditto, ditto	ditto and cordial	ditto, ditto
—— volatile ditto	1 to 2 drms.	10 to 20 drops	water, ditto	ditto, ditto	ditto, ditto
—— iron, muriated	10 to 20 drops	3 to 6 drops	ditto, ditto	tonic	ditto, rickets, worms
—— gentian	2 to 3 drms.	12 to 30 drops	ditto, ditto	stomachic	indigestion, flatulence

——— ditto volatile	1 to 3 drms.		water, ditto	stimulant and sudorific	ditto, rheumatism, &c.
——— Jalap	2 to 4 drms.	1 drm.	mint-water	brisk purgative	obstinate costiveness
——— lavend. comp.	30 to 80 drops	15 to 20 drops	water	cordial	lowness of spirits
——— myrrh	1 to 2 drms.	10 to 15 drops	ditto, twice a day	strengthening	green-sickness, debility, &c.
——— opium	10 to 30 drops	3 to 5 drops	mint-water	anodyne	spasms, acute pains, &c.
——— ——— acetic ..	20 to 40 drops	6 to 8 drops	ditto	ditto	ditto, coughs, asthmas, &c.
——— rhatania root	2 to 4 drms.	30 to 40 drops	ditto, 3 times a day ..	stomachic	indigestion, relaxation, &c.
——— ditto, comp.	2 to 4 drms.	30 to 40 drops	ditto, ditto.....	ditto and cordial	ditto, ditto
Tobacco, extract of....	2 to 4 grains	$\frac{1}{2}$ to 1 grain	pill, twice a day	anodyne	hooping cough
Turpentine, Venice	10 to 15 grains		honey, ditto	diuretic, &c.	gleet, fluor albus, gravel
——— spirit of	15 to 20 drops	4 to 8 drops	ditto, ditto	ditto	ditto, gravel, rheumatism
Valerian powder	20 to 30 grains	6 to 8 grains	mint-water, twice a day	anti-nervous	nervous head-ache, &c.
——— tincture of ..	1 to 3 drms.	10 to 30 drops	water, thrice a day ..	ditto	ditto
——— volatile ditto	40 to 80 drops	8 to 12 drops	ditto, ditto	ditto	lowness of spirits, &c.
Vitriol, acid elixir of ..	12 to 20 drops	4 to 6 drops	camom. tea, twice a day	stomachic	indige. flatulence, relaxation
Vitriolic acid, diluted..	12 to 20 drops	7 to 10 drop.	ditto	ditto	ditto, ditto, ditto
Wormwood, conserve of	1 to 2 drms.	$\frac{1}{2}$ to 1 drm.	twice a day	ditto and vermifuge ..	indigestion, worms, &c.
——— salt of	5 to 8 grains	1 to 4 grains	mint-water, twice a day	alkaline	heartburn, rickets
Wine, antimonial.....	2 to 4 drms.	1 to 2 drms.	water, ...	emetic	
—— of ipecacuan	4 to 8 drms.	2 to 3 drms.	ditto	ditto	
——— rhubarb	6 to 12 drms.	2 to 3 drms.	mint-water	aperient	costiveness, indigestion
——— steel	3 to 6 drms.	1 to 2 drms.	ditto, twice a day....	tonic	debility, green sickn. whites

PRESCRIPTIONS.

BOLUSES.

The term *bolus* is derived from the Greek, signifying a mass. When the patient cannot swallow a pill, or when it is necessary the composition should dissolve in the mouth, and gradually pass down the gullet, as in cases of ulceration, &c. or when an article is too ponderous to be suspended in a liquid, as mercury, antimony, &c. this form answers best. It should be coherent, and a little thicker than honey.—The following are some of the most useful:

Alterative Bolus.

Take of the guaiac-gum, ten grains; Ethiop's mineral, half a drachm; lenitive electuary, one drachm. Mix, and with simple syrup or water, form a bolus.

To be taken twice a day.

This is a very efficacious medicine in chronic rheumatism, gout, and cutaneous foulness.

Aluminous Bolus.

Take of alum, powdered, ten grains; conserve of roses, one drachm. With simple syrup, or water, form a bolus.

In obstinate fluxes, and excessive flow of the menses, this bolus taken twice a day has been found a most valuable remedy.

Antimonial or Diaphoretic Bolus.

Take of antimonial febrifuge powder, five grains; conserve of heps, half a drachm. Mix.

In cases of pleurisy, acute rheumatism, and fevers *strictly* inflammatory, this is an excellent remedy for exciting perspiration. It should be repeated every three or four hours till the desired effect be produced, unless it should vomit, or act on the bowels, which will in a great measure depend on the degree of acidity that may prevail there. Experience has satisfactorily proved the antimonial febrifuge powder more certain and safe in its operation, than the powder puffed off under the name of Dr. James's Fever Powder.

Calomel Bolus.

Take of calomel, prepared, four grains; conserve of hips, half a drachm. Mix.

This is generally given over night, twice a week, and purged off the following morning, with an infusion of senna-leaves in cases of worms, inflammation of the eyes, and when it is necessary to obtain a copious discharge from the system. In a weak constitution, two grains of calomel will be sufficient.

Sponge Bolus.

Take of burnt sponge half a drachm, and with mucilage of gum-arabic form a bolus.

This bolus is directed to be placed beneath the tongue, and suffered to be dissolved gradually, and the solution swallowed in cases of wen. Dr. Cheston has found this method to answer in a great number of cases. Burnt sponge is the principal ingredient in the remedy for wens so successfully employed by Dr. Bate of Coventry.

Rhubarb and Jalap Bolus.

Take of rhubarb, powdered, one scruple; jalap, ditto, ten grains; oil of caraway-seeds, two drops; simple syrup, sufficient to form a bolus.

This is a pleasant and mild aperient. If a stronger dose be required, the quantity of jalap may be increased to fifteen or twenty grains.

CATAPLASMS OR POULTICES.

The most frequent intention of a poultice is to soothe a part which is irritated, and to allay inflammation; but it may also be used to defend a sore from the action of the atmosphere, whilst a natural cure is going on, as advised by the late Mr. Hunter.

In the common *bread-poultice*, it has been the custom for a long period to employ milk, but as it is very liable to turn sour by the heat of the body, and possesses no advantage over water, the latter is now very justly preferred by surgeons; poultices are not only used to abate inflammation, or promote suppuration, but also for the purpose of stimulating the skin in cases of palsy, or for producing a determination of blood to the extremities, *viz.* plethoric or inflammatory affections of the head.—The following are some of the most useful:

Acetous Cataplasm.

This cataplasm may be made with vinegar and bran only, or with the addition of oatmeal or bread-crumbs. It is a simple but very efficacious application for sprains and bruises. It should be applied cold, and fresh vinegar poured over it as it becomes dry or warm. In sprains and bruises, this remedy has been found to answer better than the Goulard's saturnine lotion.

Alum Cataplasm.

This is prepared by stirring a lump of alum in the whites of two eggs till a coagulum be formed. It has been found very serviceable in inflammation of the eyes, particularly when attended with a purulent discharge. It should be applied between a piece of soft thin linen rag.—It is also much extolled as a very efficacious remedy for chilblains.

Bread Cataplasm.

This poultice is prepared effectually, and with very little trouble, by merely soaking slices of new bread

n boiling hot water till they are swoln, and perfectly soft: it is necessary to pour away and even to press out as much water as may appear to be superfluous, and afterwards the bread may be beaten up with a spoon. The addition of a little linseed-meal will prove of advantage in binding its parts together, so that it shall not smear or cling to the skin, and also in preserving its moisture on which its beneficial effects chiefly depend. A very common error in making this poultice, is the use of oil or hog's-lard, for the purpose of keeping it moist. Such additions are destructive of its efficacy; and, by becoming rancid, often produce much mischief.

Charcoal Cataplasm.

This poultice is made by adding two ounces of wood-charcoal, in powder, to about a pound of the bread cataplasm. It appears, this remedy has been very successfully employed at the Worcester Infirmary, for sweetening and cleaning fetid and foul ulcers.

Oatmeal Poultice.

This is made by stirring into the grounds of strong beer as much oatmeal as will make a suitable consistence. It is generally employed to invigorate the parts in cases of mortification, and sloughing ulcers, and promoting the suppuration of abscesses or boils.

Linseed Cataplasm

Is made by stirring a sufficient quantity of its meal into boiling water.

This cataplasm is much employed in hospitals as an emollient application. The bread cataplasm with a portion of linseed-meal is in many respects preferable.

Potatoe Cataplasm.

A quantity of *raw* potatoes, peeled, are to be grounded in a mortar to a proper degree of fineness.

This, though a vulgar remedy, is nevertheless a very useful application to parts that have been scalded or burned; but chiefly in the former case. It is to be applied cold. With the addition of two drachms of laudanum, to half a pound of potatoe cataplasm, it has been very successfully employed in the hospitals on the continent, in recent burns and scalds.

Rose Cataplasm.

Take of conserve of roses, two ounces; alum, finely powdered, half a drachm. To be mixed well together, and applied cold.

This is much esteemed by many oculists as a very efficacious application in the last stages of inflammation of the eyes.

Mustard Cataplasm.

(COMMONLY TERMED SINAPISM.)

Take of flour of mustard, one part; oatmeal, three parts; vinegar, sufficient quantity to form a poultice. Boil the oatmeal and vinegar together, and afterwards sprinkle in the flour of mustard. To be applied warm.

This poultice is generally applied to the feet, for the purpose of determining the blood to the lower extremities, in cases of apoplexy, inflammation of the brain, and for stimulating paralytic limbs.

Yeast Cataplasm.

This is made by stirring into a fresh infusion of malt as much oatmeal as is required to make it of a proper consistency, and afterwards adding about one or two small spoonfuls of yeast. It should then be covered over till it begins to ferment, when it should immediately be applied.

This is by much the most effectual way of applying fixed air to cancers, or ulcers in a state of mortification. At the Hereford Infirmary, it proved more efficacious than the charcoal cataplasm.—In applying

the bandage, it should be put on rather loose, as the fermentation will very considerably increase its bulk.

Opiate Cataplasm.

Dissolve two drachms of opium in a pint of boiling water, then add one ounce of linseed-meal, and a sufficient quantity of oatmeal to form a poultice.

This is a very efficacious application for assuaging the pain or allaying the irritation attendant on ulcers.

CLYSTERS. *See* LAVEMENTS.

CERATES. *See* OINTMENTS.

COLLYRIA, OR LOTIONS FOR THE EYES.

THE term *collyrium* is now only given to *fluid* applications for the eyes, or eye-waters, as they are familiarly called.

Allum Collyrium.

Take of alum, purified, fifteen grains; dissolve in six ounces of elder-flower water.

This is a good astringent eye-water, and is much in use at Guy's Hospital in the latter stages of inflammation of the eye.

Saturnine Collyrium.

Take of extract of lead, fifteen drops; best brandy, a tea-spoonful; distilled water, eight ounces. Mix.

This is as safe and efficacious eye-water as can be used on the first attack of inflammation of the eyes. It should be applied by means of folds of fine old linen, which should be kept constantly wet and cool.

Collyrium of Vitriolated Zinc.

Take of vitriolated zinc, five grains; distilled water, four ounces. Mix.

This is also an excellent lotion for inflammation of the eyes, and has often succeeded after the saturnine collyrium had failed.—It is much in use at St. Bartholomew's Hospital.

Opiate Collyrium.

Take of opium, in powder, one grain; camphor, two grains; boiling water, four ounces.

The opium and camphor are to be rubbed together in a mortar; the hot water then added, and, after standing a few minutes, the liquor to be strained through a fine cloth, and the eyes to be washed with it often.

This collyrium has very soothing properties, and is applicable to those cases of inflammation of the eye, in which there is a peculiar degree of irritability.

The Cream Collyrium.

Take of fresh cream, one ounce; extract of lead, thirty drops. Mix.

This is much recommended by Dr. Kirkland, as a powerful application for dispersing inflammation, particularly in the eye: he directs it to be applied as an ointment, or spread on lint, being powerfully sedative, and remarkable for the degree of cold which attends its application: it proves likewise an admirable remedy for slight burns and scalds.

Blue Vitriol Collyrium.

Take of blue vitriol, two grains; dissolve in four ounces of distilled water.

This is very useful as a general eye-water, after the inflammatory stage of opthalmia; but it is more particularly calculated for the removal of slight specks on the eye, in which case a small drop must be put into the eye.

DECOCTIONS.

Decoctions are made by boiling. Although this increased heat may hasten the extraction of the medi-

cinal mixture of many articles, it decomposes and dissipates all volatile matters. Boiling, therefore, is only necessary for the solution of principles that are not volatile, or altered by heat. Decoctions should be made in vessels sufficiently large to prevent any risk of boiling over, and should be continued gently and without interruption.

Decoction of Peruvian Bark.

Take of Peruvian bark, bruised, one ounce; distilled water, a pint and half. Boil for twenty minutes in a covered vessel, and strain the liquor while hot.

Decoction of White Hellebore-root.

Take of white hellebore-root, bruised, one ounce; water, one quart; boil till the water is reduced to a pint; then strain, and add rectified spirit of wine, two ounces.

This decoction is employed as a lotion for the itch; which it frequently cures, and is exempt from the great objection made to sulphur-ointment.

Decoction of Pearl-barley.

Take of pearl-barley, two ounces; water, five pints. Wash the barley from the meal that adheres to it in cold water; then boil it a minute or two, in half a pint of water, to extract the colouring matter; pour off the water; and add fresh boiling water, five pints; which is to be boiled down to one-half, and then strained off for use.

Compound Decoction of Barley.

Take of decoction of barley, made as above, two pints; figs, sliced, two ounces; liquorice-root, sliced and bruised, half an ounce; raisins, stoned, two ounces; distilled water, one pint. Boil to two pints, and strain.

These decoctions afford very excellent diluting beverages in acute diseases; the former in inflammatory fevers, strangury, &c. &c. the latter in inflammatory attacks of the chest, as pleurisy, inflammation of the lungs, recent coughs, &c. As their efficacy depends on their free use, it is of great consequence they should be prepared so as to be agreeable to the palate.

The addition of a little lemon or orange-juice, or currant-jelly will take off the raw taste of the barley, and, in most instances, promote its efficacy. However trivial medicines of this class may appear to be, observes that eminent physician, Dr. Andrew Duncan of Edinburgh, they are of greater importance in the cure of acute diseases than many more elaborate preparations.

Decoction of Marshmallow-root.

Take of marshmallow-roots, bruised, three ounces; raisins, stoned, one ounce; water, three pints and a half. Boil the ingredients in the water till it is reduced to two pints; then strain off the liquor, and let it stand for two or three hours to settle.

This decoction is chiefly used in cases of gravel, strangury, and cough. It is in no respect superior to the compound decoction of barley.

Decoction of Oak Bark.

Take of oak bark, bruised, one ounce; distilled water, two pints. To be boiled till reduced to a pint.

This is a good astringent injection in cases of fluor albus, gleet, or descent of the fundament.

Decoction of Iceland Liverwort.

Take of Iceland liverwort, one ounce and a half; liquorice-root, sliced, three drachms; water, one quart.

After freeing the liverwort from the green moss, and washing it in cold water, boil it in the water to a pint and a half, and strain while warm.

Compound Decoction of Sarsaparilla.

Take of the root of sarsaparilla, sliced, and bruised, six ounces; bark of the root of sassafras; shavings of guaiacum-wood, liquorice-root, of each one ounce; mezereon, three drachms; distilled water, ten pints. Macerate for six hours, then boil it down to five pints; adding, towards the end of the boiling, the mezereon and sassafras, and strain the liquor for use.

This decoction is an improvement on the once highly elebrated *Lisbon Diet Drink;* which, for some time fter its first introduction into Great Britain, was kept secret. In the dose of four or six ounces, three or our times a day, it has been found very serviceable in bstinate rheumatic affections. It is also an excellent terative in scrophula, schirrhous affections of the omb, and cutaneous foulnesses.

Decoction of Burnt Hartshorn.

Take of burnt-hartshorn, two ounces; gum-arabic, n ounce; boil in three pints of water, till reduced two pints; adding, towards the end, two drachms cinnamon-bark, bruised. When cold pour off the quid for use.

This decoction (commonly called the *White Drink),* the quantity of a wine-glass or tea-cupful three mes a day, is a very excellent remedy for strengthing the bowels when disposed to looseness. For e purging of children, in the quantity of a dessertoonful three or four times a day, it is a very valuable edicine; as it not only checks them, but, by destroyg acidity, also removes the cause. For the purging tendant on pulmonary consumption it is also a valule medicine.

DRAUGHTS.

This form of administering medicines is by some rsons preferred on account of its being a more exact thod than what is termed a Mixture, which, in ace or potent drugs, is of great importance. As a lus is a single dose of an electuary, so a draught is ingle dose of a mixture.

Anodyne Draught.

Take of liquid laudanum, from ten to fifteen drops; eet spirit of nitre, thirty drops; simple peppermintter, one ounce. Mix.

In acute pains, arising from accidents, wounds, or owing labour, this draught may be taken with safety,

and repeated occasionally. In great restlessness, unaccompanied with inflammatory fever or fulness of the system, it in general proves a pleasant and efficacious anodyne.

Purging Draught.

Take of Epsom salts, two drachms; manna, one drachm; rheubarb powder, ten grains; compound tincture of senna, three drachms; peppermint-water, one ounce.

Diaphoretic Draught.

Take of Mindererus' spirit, half an ounce; Dover's powder, fifteen grains; peppermint-water, one ounce; white sugar, two scruples. Mix.

This is a very efficacious medicine for promoting perspiration in cases of rheumatism, recent cold, catarrh, pleurisy, &c.

ELECTUARIES.

An electuary is a form of medicine composed of powders, incorporated with some syrup, conserve, or honey. As this form is much disposed to ferment, it should be kept in a cool place.

Alterative Electuary.

Take of Ethiop's mineral, one ounce; lenitive electuary, two ounces. With simple syrup, form an electuary.

Of this a small tea-spoonful is to be taken twice a day in those diseases of the skin generally termed scorbutic.

Charcoal Electuary.

Take of charcoal-powder, three drachms; prepared soda, one drachm; lenitive electuary, four ounces.

This electuary, in the quantity of one or two spoonfuls twice a day, has been very successfully employed in the New York Hospital, in scrophulous complaints.

t has lately been recommended in cases of hectic ver, and incipient pulmonary consumption.

Electuary of Sulphur.

Take of flowers of sulphur, six drachms; lenitive ectuary, two ounces; nitre powder, half a drachm; mple syrup, a sufficient quantity. A tea-spoonful be taken twice a day.

This is principally used in cases of piles.

Electuary of Tin.

Take of granulated tin, six ounces; conserve of ormwood, three ounces; with simple syrup, make electuary.

A large tea-spoonful to be taken every morning, ith a wine-glassful of lime-water.

This electuary has been found very successful in e destruction of worms, particularly the tape kind.

ELIXIRS. *See* TINCTURES.

EMULSIONS.

The term *emulsion* is applied to those medicines ich, in appearance, resemble milk. Grinding the y seeds of plants, or kernels of fruits, with common distilled water, is an excellent vehicle for many ugs which cannot be so conveniently taken in any er way. Thus, camphor rubbed with almonds dily unites with water into an emulsion. The following are among the most useful forms.

Almond Emulsion.

Take of sweet almonds, six drachms; white sugar, drachms; pure water, one pint. The almonds to be first blanched by infusing them in boiling ter, and afterwards peeling them. They are then e well beat in a marble mortar, with the sugar, to mooth pulp; when the water is to be added by

degrees, and the rubbing continued till they are well blended, when the mixture should be passed through fine muslin for use. Great care should be taken that the almonds are free from any rancid taste.

Trifling as this emulsion may appear to be, it is the most valuable medicated beverage we possess; and in cases of strangury, inflammation of the lungs, bowels, kidneys, ureters, bladder, and urethra, pleurisy, recent coughs, and pulmonary consumption, is very superior to barley-water or linseed-tea. It may be taken in the same manner as directed for barley-water.

For the coughs of children, and irritation in the bowels, arising from teething or obstructed perspiration, this emulsion, with the compound tragacanth powder, in the proportion of a drachm to a pint, is an excellent drink; and in the quantity of twelve ounces, or a pint, in the course of the day, will supply the place both of medicine and diet, for it not only quiets the system, but also nourishes it.

Arabic Emulsion.

This emulsion is made by dissolving half an ounce of gum-arabic in a pint of the almond emulsion.

It is principally used for strangury, arising either from acrimony of the juices, or the effect of blisters, or irritating medicines.

Camphorated Emulsion.

Take of camphor, one scruple; sweet almonds, blanched, two drachms; gum-arabic powder, one drachm; double-refined sugar, one drachm; water, six ounces.

This is made in the same manner as the common almond emulsion. In the quantity of a wine-glassful repeated every three hours, it is an excellent remedy for strangury, or irritation in the kidneys, bladder, or ureters.

Gum-ammoniac Emulsion.

Take of gum-ammoniac, two drachms; distilled water, half a pint. First reduce the gum to a powder,

by rubbing it in a marble mortar with a little white sugar, and add the water very gradually, at the same time continuing the rubbing.

This emulsion is generally employed in chronic or asthmatic coughs; by producing a thinner secretion of mucus in the lungs, it considerably facilitates expectoration: it may be given to the quantity of two table-spoonfuls three times a day. It is an excellent medicine.

Oily Emulsion.

Take of oil of almonds, one ounce; spirit of hartshorn, thirty drops; salt of tartar, twelve grains; soft water, six ounces. To be well shaken together.

This emulsion, in the quantity of two table-spoonfuls every three hours, is a very popular remedy, in many parts of England, for recent coughs. If the cough be obstinate, or the skin dry and feverish, six grains of Dover's powder will prove a powerful auxiliary.

Asafetida Emulsion.

Take of asafetida-gum, two drachms; pennyroyal-water, seven ounces; to be blended in the same manner as directed for the gum-ammoniac emulsion.

It is chiefly administered in cases of spasmodic asthma, fainting or hysteric fits, in the dose of two table-spoonfuls every four hours. It is both antispasmodic and expectorant.

EMBROCATIONS. *See* LINIMENTS.

EYE-WATERS. *See* COLLYRIA.

FOMENTATIONS.

A FOMENTATION is a liquid applied externally, of such a degree of heat as the patient can conveniently bear, in the following manner. Two thick pieces of flannel are dipped into the heated liquor, one of which

is wrung nearly dry in a towel or napkin, and immediately taken out, and spread over the part affected: as soon as the heat is nearly gone off, the other, which should be in readiness, is applied the instant the first is removed. In this manner the flannels are alternately applied, so as to keep the part constantly warm. This process is generally continued for fifteen or twenty minutes, and repeated, when the intention is to relax and sooth inflammation, two or three times a day. The degree of heat should never exceed that of producing a pleasing sensation. When the object is to promote the suppuration of an indolent tumor, a greater degree of heat may be employed. For these purposes, warm water alone will answer as well as the decoction of herbs; but when an anodyne, or antiseptic is required, as in cases of mortification, irritation, &c. such ingredients are used as are adapted to that end: of these the following forms are the most efficacious;

Camphorated Fomentation.

Take of camomile-flowers, two ounces; crude sal-ammoniac, one ounce; camphorated spirit, four ounces; water, two quarts. Boil the camomile-flowers in the water, in a close vessel, for about five minutes; then add the sal-ammoniac in powder, and at the time of using it, the camphorated spirit.

This fomentation is chiefly employed for the purpose of exciting a healthy action in sluggish ulcers.

Fomentation of Hemlock.

Half a pound of the leaves of hemlock, fresh gathered, or three ounces of dried, are to be boiled in three pints of water to a quart.

This is commonly used to foment cancerous or scrophulous ulcers.

Fomentation of Camomile Flowers.

Take of camomile-flowers, two ounces; boiling water, four pounds. The flowers are to be added to the water, and the boiling continued four or five minutes, after which the liquor is to be strained.

This is the common fomentation of St. Bartholomew's Hospital.

Fomentation of Galls.

Take of galls, bruised, half an ounce; boiling water, one quart. To be macerated for an hour, and the liquor strained.

The principal use of this astringent fomentation is in the falling of the fundament. It is, however, of considerable use in the treatment of piles, and the fluor albus, in which cases it should be applied cold.

Fomentation of White Poppy-heads.

Take of white poppy-heads, four ounces; water, two quarts.

This is the anodyne fomentation of Guy's Hospital. The poppy-heads, after having been bruised, are to be boiled in the water till reduced to a quart, which is to be strained, and the liquor to be well pressed out from the remaining poppies. It is highly beneficial in assuaging pain in inflamed or ulcerated parts, and also affords great relief in violent cases of inflammation of the eyes.

GARGLES.

A GARGLE is a liquid form of medicine, used for washing the mouth or throat, when inflamed, ulcerated, parched, or foul. The quantity of two table-spoonfuls should be taken into the mouth; or, when the patient is not capable of doing this with any advantage, the liquor may be injected by a syringe, or applied by means of a sponge, secured to the end of a piece of whalebone. The use of a gargle should be repeated every hour in cases of ulceration or inflammation.

Alum Gargle.

Take of alum, one drachm; rose-leaves, dried, one drachm; honey, one ounce; barley-water, six ounces. Infuse the rose-leaves in the boiling water for two

hours, then strain the liquor, and dissolve in it the alum and honey.

This gargle is calculated for ulceration in the throat and mouth. It is also of service in relaxations of the soft palate, and other cases requiring astringent application.

Acidulated Rose Gargle.

Infuse two drachms of dried damask rose leaves in a pint of boiling water till cold; then strain, and add diluted vitriolic acid, sixty drops.

This is an excellent astringent gargle for the throat.

Gargle of the Oak Bark.

Take of oak bark, bruised, half an ounce; boil in a pint of water for half an hour; then strain, and add two drachms of alum, in powder, and a quarter of a pint of red port wine.

This is a very powerful astringent gargle, and has proved very efficacious in relaxations of the tonsils, after other topical remedies had failed.

Gargle of Myrrh.

Take of tincture of myrrh, half an ounce; honey of roses, an ounce and a half; lime-water, six ounces. Mix.

This is an efficacious detergent gargle for foul ulcers in the mouth or throat. Small pieces of lint may in some cases be dipped into it, and applied to the sore with mucilage.

Gargle of Muriatic Acid.

Take of muriatic acid thirty drops; honey of roses, two ounces; decoction of barley, six ounces. Mix.

This gargle is much employed at Guy's Hospital, in common cases of inflammation or ulceration of the throat. It seldom succeeds so well as the acidulated gargle.

Nitre Gargle.

Take of water, six ounces; honey, half an ounce; nitre, one drachm; dissolve the nitre in the water, then add the honey.

This gargle is preferred by many physicians to the cidulated rose, or muriatic acid gargle, in cases of flammation of the throat, and cleansing the mouth throat in fevers. It is certainly less efficacious.

INFUSION.

When the medical virtues of any substance reside an essential oil, or in a volatile matter, then extraction by infusion is preferred to decoction; as by the tter these active parts are evaporated. The former done by pouring on the bruised substance, in a proer vessel, the liquor, either hot or cold, and afterards covering it over. The whole should be slightly gitated, and the liquor after standing the proper me, poured off, or strained through fine linen. Maeration differs from infusion, it being continued a nger time, and can only be employed for substances hich do not easily ferment or spoil.—The following ffusions are principally in use.

Infusion of Peruvian Bark.

Take of Peruvian bark, one ounce; boiling water, e pint. Macerate for twenty-four hours, and strain rough fine cloth.

This elegant form contains the active principles of e Peruvian bark, and agrees much better with weak delicate stomachs, than either the powder or decction of bark. It is given in the quantity of a all wine-glassful, to which it is customary to add a a-spoonful of the compound tincture of bark or of rdamoms.

Infusion of Rhatany Root.

Take of rhatany root, six drachms; boiling water, e pint. Infuse for twenty hours, then strain through e cloth for use.

To be taken as directed for the infusion of Peruvian rk.

Bitter Infusion.

Take of gentian-root, sliced, one drachm; dried Seville orange-peel, one drachm and a half; fresh outer rind of lemon, half an ounce; boiling water, three quarters of a pint. Macerate for an hour, and strain for use.

This infusion is in very common use as a stomachic medicine, in the quantity of three table-spoonfuls two or three times a day.

Alkaline Bitter Infusion.

Take of the bitter infusion, eight ounces; salt of wormwood, twenty grains. Mix.

This is to be taken in the same manner as the preceding infusion. In cases of indigestion, especially when acidity prevails in the stomach, this is a very excellent remedy.

Infusion of Valerian.

Take of valerian-root, bruised, one ounce; infuse in three quarters of a pint of boiling water; when cold, strain off the liquor, and add compound spirit of lavender, and spirit of sal-volatile, each half an ounce.—Three ounces of it may be taken three or four times a day, in nervous and paralytic disorders.

Infusion of Rhubarb.

Take of rhubarb-root, bruised, a quarter of an ounce; boiling water, a quarter of a pint; spirit of cinnamon, one ounce. Macerate the rhubarb, in a close vessel, with the water, for twelve hours; then strain the liquor, and add the spirit of cinnamon.

This is a very excellent, and perhaps the best preparation of rhubarb, when designed as a purgative, as the virtue of the rhubarb is more readily imparted in water than any other liquor. The dose is from two to four table-spoonfuls.

Infusion of Roses.

Take of red rose leaves, half an ounce; boiling water, two pints; vitriolic acid, half a drachm by weight;

nole sugar, one ounce. Macerate the rose leaves th the water, in an earthen vessel not glazed with id, for four hours; then add the vitriolic acid, strain e liquor, and dissolve in it the sugar.

This is an excellent and efficacious medicine in he- orrhages, either from the nose, womb, stomach, or ngs, in the quantity of three table-spoonfuls every ree or four hours. It is also a good gargle.

Infusion of Senna.

Take of senna-leaves, three drachms; boiling water, e ounces; coriander or caraway-seeds, bruised, one achm. Macerate them for an hour, in a covered ssel, and strain through fine cloth.

This is a very efficacious purge in the dose of three four spoonfuls. The caraway or coriander-seeds t only cover the ill flavour of the senna, but also rrect its griping quality. It should be always used sh, as it is apt to spoil very quickly.

Paralytic Infusion.

Take of horse-radish and mustard-seed, of each e ounce; Winter's bark, three drachms. Infuse in int and a half of boiling water for six hours.

This is a good stimulating medicine, in cases of mbness and chronic rheumatism. A wine-glassful ay be taken three times a day.

Infusion of Linseed.

Take of linseed, one ounce; liquorice-root, two achms; boiling water, two quarts. To be mace- ed for six hours, stirring the mixture with a spoon out every hour, in order that the mucilage of the ds may be suspended.

This is a very useful beverage in cases of inflamma- n of the lungs, recent coughs, the measles, gravel, lammation of the bladder, and strangury.

JULEPS.

A JULEP is a very simple form of medicine, being efly composed of some distilled waters and syrup; y were at one time in much use as a vehicle for

drugs not so convenient to administer alone: they are now seldom prescribed, and have been expunged from our modern Pharmacopœias.

Mint Julep.

Take of simple mint-water, one pint; conserve of roses, one ounce; acid elixir of vitriol, one drachm.

This is much in use at St. Bartholomew's Hospital, as a stomachic medicine. It possesses no advantage over the infusion of roses, but is in many respects inferior to it.

Volatile Julep.

Take of volatile sal-ammoniac, one drachm; distilled water, half a pint: spirituous alexiterial water, half an ounce; simple syrup, three drachms. Four large table-spoonfuls to be taken three times a day in cases of acidity in the stomach, indigestion, palsy, nervous irritability, &c.

Camphorated Julep.

Take of camphor, one drachm; white sugar, half an ounce; boiling water, one pint. First grind the camphor with about thirty or forty drops of spirit of wine till it be softened; then with the sugar till it be perfectly united; lastly, add the water by degrees: when the mixture has stood in a covered vessel till it is cold, strain it off for use. This julep is seldom given alone, but employed as a vehicle for the Peruvian bark powder, or with saline diaphoretics in inflammatory attacks, or cordials in nervous affections.

Musk Julep.

Take of musk, twenty grains; white sugar, one drachm; rose-water, six ounces. Grind the musk and sugar together, and gradually add the rose-water.

This julep is principally prescribed in cases of convulsions and spasmodic affections. Such as hiccup, St. Vitus's dance; hooping-cough, &c. From two to four table-spoonfuls may be taken every three or four hours.

LAVEMENTS.

LAVEMENTS are used for the same purposes as Mixtures. In cases of obstinate costiveness, or obstructions in the bowels, a lavement accelerates the operation of purgative medicines taken by the mouth. In cases of violent diarrhœa, dysentery, and the purging of children, a lavement of vegetable jelly, (as starch or arrow-root, to which laudanum may be added in case of violent pain or irritation,) is a most important remedy. The Peruvian bark may also be exhibited this way, to patients whose stomachs will not bear it, in intermittent fevers, and also laudanum in acute pain in the bowels.

Clysters are likewise used as a fomentation, in cases of inflammation of the bladder, womb, or bowels, and for nourishing the body when the patient cannot retain food, or is not able to swallow it, through inflammation of the throat, or obstruction in the gullet.—The following are some of the most useful:

Anodyne Lavement.

Take of starch-jelly, half a pint; laudanum, forty drops. Mix.

The whole to be injected by means of a syringe, in cases of dysentery, or a violent purging, and pain in the bowels.

Laxative Lavement.

Take of Epsom salt, two ounces; dissolve in three quarters of a pint of warm gruel or broth, with an ounce of fresh butter, or sweet oil.

Antispasmodic Lavement.

Take of tincture of asafetida, half an ounce; laudanum, forty drops; gruel, half a pint. Mix.

For spasmodic affections of the bowels.

Nutrient Lavement.

Take of strong beef-tea, twelve ounces; thicken it with hartshorn-shavings, or arrow-root.

In cases of extreme debility of the body, or when the patient cannot take food by the mouth through some obstruction of the throat, this affords considerable support to the system, and has been the means of preserving the lives of patients till the cause has been removed.

It should be thrown up with a flexible tube, longer than the clyster-pipes in common use, gently insinuated up the rectum. If any irritation be produced, either by the rude introduction of the tube, or sudden distention of the intestine, the intention of the injection will be defeated by its being hastily evacuated; and has hence been productive of serious consequences by bringing on a diarrhœa, which the reduced state of the patient could ill bear.

Turpentine Clyster.

Take of spirit of turpentine, sixty drops; decoction of linseed or gruel, half a pint. Mix well together.

This clyster is generally prescribed in fits of the gravel or lumbago: it is also an excellent carminative.

Peruvian Bark Clyster.

Take of Peruvian bark, powdered, two drachms; gruel, half a pint; liquid laudanum, two drops.

As it is intended this clyster should be retained for three or four hours, it should be very gently thrown up, and only milk-warm.

LINCTUS.

The term *linctus* is applied to a composition of the consistence of soft honey, generally prescribed for cough, or some affection of the chest. It is called by Arabian physicians, *a lohoch.*

Common Linctus.

Take of conserve of heps, half an ounce; syrup of red poppies, and oil of sweet almonds, of each one ounce; diluted vitriolic acid, twenty drops. The dose is a small tea-spoonful whenever the cough is troublesome.

Spermaceti Lohoch.

Take of spermaceti, finely powdered, and conserve of roses, of each one ounce; pectoral syrup, two ounces; nitre-powder, half a drachm. Mix well together. A tea-spoonful to be taken when the cough is troublesome. When the cough is very obstinate and particularly dry, ten grains of ipecacuan powder will prove an useful addition to either of these prescriptions.

LINIMENTS.

A LINIMENT is a composition for external purposes.

Volatile Liniment.

Take of spirit of hartshorn, one ounce; olive-oil, an ounce and a half. To be mixed by shaking them in a phial.

The use of this liniment is well known; the only objection to it is the uncleanliness attending its application.

Camphorated Volatile Liniment.

Take of camphor, two drachms; olive-oil, one ounce; spirit of hartshorn, two ounces. The camphor is first to be dissolved in the oil by rubbing in a mortar, then added to the spirit of hartshorn in a phial, and well shaken together. In cases of rheumatism and palsy, this is preferable to the preceding liniment; and also in deep-seated inflammation, or to hasten the suppuration of indolent tumors.

Anodyne Volatile Liniment.

Take of purified opium, a drachm and a half; proof spirit of wine, two ounces; spirit of hartshorn, four ounces. To be digested together, in a very gentle heat, till the opium is dissolved. This is a very valuable liniment in cases of painful rheumatism or swelling of the joints.

Liniment for Scalds and Burns.

Take of linseed-oil, an ounce and a half; lime-water, three ounces. This liniment is much used as a remedy for burns and scalds.

This liniment possesses great efficacy in removing local pains when rubbed on the affected part.

LOTIONS.

A LOTION is a form of medicine used as a wash, or applied by folds of linen.

Lotion of Mindererus' Spirit.

Take of Mindererus' spirit, rectified spirit of wine, spring water, each four ounces. Mix.

This is a very useful application, for dispersing external inflammation. The method of using it is by dipping a linen-rag, folded, into it, and afterwards keeping the part affected continually covered with it. When the rag becomes warm or dry, a little of the lotion should be poured on afresh.

Lotion of the Muriate of Ammonia.

Dissolve an ounce of the muriate of ammonia in a pint of spirit of rosemary.

This lotion is much recommended for the breast in the milk-fever. It differs but little from the preceding lotion, and is to be applied in the same manner.

Lotion of Muriate of Ammonia with Vinegar.

Dissolve half an ounce of muriate of ammonia in a pint of vinegar, then add a pint of rectified spirit of wine.

This lotion is much employed at St. Bartholomew's hospital, as a discutient.

Anodyne Volatile Lotion.

Take of spirit of ammonia, three ounces and a half; distilled water, four ounces; tincture of opium, half an ounce. Mix.

This lotion is much recommended for dispersing hard tumors in the breasts of women. The internal use of the prepared natron with bark, in proportions specified for the scrophulous mixture, is directed to accompany its use.

Lotion of Extract of Lead.

Take of extract of lead, two drachms; pure water, two pints; rectified spirit of wine, one ounce.

This is a very efficacious lotion for abating inflammation. As much of its efficacy depends on its being applied cold, the rags should be moistened as soon as they become warm.

Camphorated Lotion of Extract of Lead.

Take of spirit of camphor, two drachms; extract of lead, one drachm; pure water, one pint.

This is a good lotion, of considerable efficacy in inflammation. In erysipelas, however, such lotions should not be applied without the advice of an experienced physician or surgeon.

Lotion of Lime Water.

Take of lime-water, half a pint; spirit of wine, four ounces. Mix.

This is an elegant and soothing application to inflamed parts.

Camphorated Lotion of Elder-flowers.

Take of dried elder-flowers, half an ounce; camphor, half a drachm; rectified spirit of wine, four ounces. The elder flowers and camphor are to be infused together in the spirit of wine twenty-four hours, and the clear liquor afterwards poured off.

In a weak state of the eye, when debility of the optic nerve is suspected, this lotion may be occasionally applied with the finger to the outside and edges of the eye-lids, and every night and morning by means of a linen-rag, wetted and left on for a minute or two over the eye-lids, wiping them dry afterwards.

Camphorated Lotion of Vinegar.

Take of camphor, two drachms; dissolve in rectified spirit of wine, four ounces; then add white wine vinegar, a pint.

This is an excellent application for sprains and bruises. It proves efficacious when applied in the form of a poultice, which may be made by adding a sufficient quantity of bran to make it of a proper consistence. When the bran becomes dry, a fresh quantity of the lotion should be poured on it.

It is of great importance in scalds and burns to apply a remedy as soon as possible, as thereby the violent anguish is allayed, and the blisters, in scalds particularly, are in a great degree prevented. Of the remedies most readily to be found on such occasions, (if spirit of turpentine or spirit of wine cannot be got at hand,) rum or brandy may be employed.

Liniment of Mustard.

Take of yellow mustard-seed, half an ounce; oil of turpentine, one pound; camphor, four ounces.

The mustard-seed, after being well bruised, is to be digested for a week in the oil of turpentine; the fluid is then to be poured off, and what is retained by the mustard-seed pressed out, and afterwards the camphor is to be added, which will soon dissolve in it. This liniment is very superior to the nostrum advertised under the name of essence of mustard; it is chiefly employed in cases of chronic rheumatism, or swelling of joints.

Anodyne Liniment of Amber.

Take of rectified oil of amber, and tincture of opium, of each two ounces; hog's-lard, one ounce.

The tincture of opium being first mixed with the lard in a mortar, the oil of amber is to be added by degrees. This liniment is held in great estimation in Cheshire as a remedy for the cramp: it is of considerable use as an application to parts affected with rheumatism, or after having been severely sprained.

Soap Liniment.

(COMMONLY CALLED OPODELDOC.)

Take of Castile soap, three ounces; camphor, one ounce; spirit of rosemary, one pint.

Digest the soap in the spirit of rosemary until it be dissolved, and add to it the camphor.

Anodyne Liniment.

Take of the soap-liniment, four ounces; tincture of opium, half an ounce. Mix.

Lotion of Vitriolated Iron.

Dissolve one drachm of vitriolated iron in four ounces of water.

This is a very efficacious lotion for the scald head, and has succeeded after the usual remedies have failed; the parts affected should be washed with it every night and morning.

MIXTURES.

MANY patients prefer this form of medicine to either pill, bolus, or electuary, and in general its operation is more speedy and effectual.

Stomachic Mixture.

Take of the essential salt of bark, one drachm; dissolve in half a pint of distilled water; then add tincture of Jamaica ginger and camomile, two drachms. Or, take of extract of rhatany-root, one drachm; aromatic tincture of ditto, half an ounce; pure water, seven ounces. Mix.

Two or three table-spoonfuls of either of these mixtures may be taken three times a day. When acidity prevails in the stomach, a drachm of prepared natron, or a drachm of magnesia, may be added; or in cases of costiveness, unattended with acidity, two or three drachms of the Epsom salt.

Sudorific Mixture.

Take of Mindererus' spirit, three ounces; ipecacuan powder, ten grains; pure water, five ounces; essence of peppermint, fifteen drops. Mix.

Three table-spoonfuls to be taken every two hours, till it produces the desired effect.

N. B. All medicines administered to promote perspiration, should be assisted in their operation by the plentiful use of *tepid* drinks, such as warm barley-water, gruel, tea, or the like.

Cretaceous Mixture.

Take the compound cretaceous powder, two drachms; gum-arabic powder, three drachms; laudanum, twenty drops; pure water, six ounces; essence of cinnamon, forty drops. Dissolve the gum-arabic in an ounce of water, and rub with it the compound powder. Then add the other ingredients.

Two table-spoonfuls to be taken after every loose stool, in cases of diarrhœa or dysentery.

Anti-hysteric Mixture.

Take of tincture of asafetida, three drachms; sal-volatile, two drachms; camphorated julep, six ounces. Mix. Two table-spoonfuls to be taken every three or four hours.

Cough Mixture.

Take of ipecacuan powder, ten grains; gum-arabic powder, four drachms; laudanum, twenty drops; simple oxymel, two ounces; almond emulsion, six ounces. Mix. Two table-spoonfuls to be taken every two hours, for recent coughs, pleurisy, and inflammation of the lungs.

Camphorated Bark Mixture.

Take of essential salt of bark, one drachm; dissolve in camphorated julep, six ounces; sweet spirit of nitre, two drachms. Mix. Three table-spoonfuls to be taken every two or three hours, in low infectious fevers, putrid sore throat, and mortifications.

The bark, thus associated, acts with more energy and force, whether it be for the purpose of curing fever or gangrene, than the bark in powder.

Asthmatic Mixture.

Take of paregoric elixir, one ounce; camphorated julep, six ounces; tincture of asafetida, half an ounce; or vitriolic ether, three drachms; honey, half an ounce. Mix. Two table-spoonfuls to be taken with ten grains (in two pills) of the squill-pill, for *chronic* difficulty of breathing, and *spasmodic* asthma.

Gout Mixture.

Take of volatile tincture of guaiacum, six drachms; camphorated mixture, six ounces; tincture of rhubarb, half an ounce; honey, half an ounce; rub the tincture of guaiacum with the honey, in a glass mortar; then add the other articles by degrees. Two table-spoonfuls to be taken every four or five hours.

Antispasmodic Mixture.

Take of ether, two drachms; spirit of sal-volatile, a drachm and a half; liquid laudanum, thirty drops; pure water, six ounces. Mix. Two table-spoonfuls to be taken every three or four hours, for spasmodic colic, or asthma.

N. B. Such medicines should not be administered in cases of colic till three or four evacuations have been procured from the bowels, by means of castor-oil, or an aperient mixture, unless attended with very acute pain in the bowels.

Anti-rheumatic Mixture.

Take of volatile tincture of guaiacum, half an ounce; honey, half an ounce; camphorated julep, six ounces; liquid laudanum, twenty drops; rub the tincture of guaiacum with the honey, in a glass mortar; and add the other articles by degrees. Two table-spoonfuls to be taken three or four times a day for *chronic* rheumatism.

Nervous Mixture.

Take of essential salt of bark, one drachm; or extract of rhatany-root, a drachm and a half; dissolve in camphorated julep, six ounces; then add spirit of sal-volatile, two drachms; compound spirit of lavender, three drachms. Two table-spoonfuls to be taken three or four times a day.

For nervous irritability and periodical head-aches, this is a very valuable remedy.

Absorbent Mixture.

Take of magnesia, one drachm; rhubarb-powder, ten grains; laudanum, six drops; pure water, two ounces; essence of mint, four drops. Mix. A tea-spoonful to be given in cases of gripes, and flatulency, affecting children: if attended with purging, a drachm of the compound cretaceous powder may be added in lieu of the magnesia and rhubarb.

Stimulating Mixture.

Take of horseradish-root, sliced, and mustard-seed, bruised, of each one ounce. Infuse in a pint of boiling water in a gentle heat for twelve hours; then strain, and add compound spirit of lavender, one ounce. A wine-glassful to be taken three or four times a day, for paralytic complaints.

For Scrophula, or King's Evil.

Take of essential salt of bark, two drachms; or extract of rhatany-root, three drachms; prepared natron, two drachms; dissolve in a pint of distilled water; then add compound tincture of bark, or of rhatany-root, one ounce. Three table-spoonfuls to be taken three times a day.

For the Hooping Cough.

Take of ipecacuan powder, ten grains; tincture of asafetida, one drachm; laudanum, ten drops; pure water, two ounces. Mix. To a child of two years old, a tea-spoonful may be given every three hours, increasing ten drops every additional year.

Tonic Mixture.

Take of extract of rhatany-root, three drachms; dissolve in twelve ounces of water, and add aromatic tincture of rhatany-root, one ounce; spirit of sal-volatile, two drachms. Two or three table-spoonfuls to be taken every three or four hours; for relaxation and weakness of the system; when attended with a sluggish state of the bowels, three drachms of the vitriolated kali may be added; or in cases of profuse perspiration, two drachms of the diluted vitriolic acid may be substituted for the spirit of sal-volatile.

Saline Mixture.

Take of crystalized acid of lemon, one drachm; or fresh lemon-juice, an ounce and a half; salt of wormwood, one drachm; white sugar, three drachms; pure water, twelve ounces; essence of peppermint, thirty drops. Mix. A tea-cupful to be taken frequently in inflammatory fevers and sore throat.

Pectoral Mixture.

Take of gum-ammoniac, three drachms; penny-royal water, eight ounces; oxymel of squills, one ounce. Mix. The gum is to be rubbed to a powder, in a marble-mortar, and the water added very gradually, and lastly the oxymel.

This is a very efficacious medicine for promoting expectoration in chronic or asthmatic coughs, and difficulty of breathing. It may be taken in the quantity of two table-spoonfuls three or four times a day.

Spermaceti Mixture.

Take of spermaceti, finely powdered, half an ounce; half the yolk of an egg; pure water, six ounces; simple syrup, half an ounce; ipecacuan wine, one drachm; paregoric elixir, three drachms. Rub the spermaceti powder with the yolk of an egg in a mortar till well blended, then add the water by degrees, and the other ingredients.

This is a pleasant and efficacious mixture for recent coughs. It promotes expectoration and perspiration. From two to three table-spoonfuls may be taken every

three hours, or one table-spoonful when the cough is troublesome.

Mixture for Fluor Albus and Gleet.

Take of balsam copaiba, two drachms; gum-arabic powder, three drachms; infusion of rhatany-root, seven ounces; aromatic tincture of rhatany-root, six drachms; simple syrup, half an ounce. Dissolve the gum-arabic in half an ounce of water, then rub with it the balsam of copaiba, and when well blended, add very gradually the infusion, tincture, or syrup.

This mixture, in the dose of two or three table-spoonfuls three times a day, is a very excellent remedy for the disease specified in its title.

Mixture for Diabetes.

Take of decoction of rhatany-root, seven ounces; tincture of muriate of iron, one drachm; aromatic tincture, one ounce. Two table-spoonfuls to be taken three times a day.

Mixture for Dropsy.

Take of extract of rhatany, two drachms; tincture of squills, one drachm; sweet spirit of nitre, and compound spirit of ammonia, of each two drachms; aromatic tincture of rhatany, half an ounce; pure water, seven ounces. Mix. Three table-spoonfuls to be taken three or four times a day.

In dropsical affections, either of the chest, belly, or extremities, this is an efficacious remedy. By strengthening the system, and increasing the secretion of urine, it has proved successful in several deplorable cases.

For Habitual Looseness, or Chronic Dysentery.

Take of extract of rhatany, one drachm and a half; aromatic tincture of rhatany, six drachms; pure water, seven ounces. Mix. From two to three table-spoonfuls to be taken every three or four hours.

For Typhus Fever, or Mortification.

Take of extract of rhatany, one drachm and a half; camphorated julep, seven ounces; diluted vitriolic

id, two drachms. Mix. Three large spoonfuls to
: taken every four hours.

For Ague, or Epileptic Fits.

'Take of rhatany powder, one ounce; divide into
xteen equal parts; one to be taken every two or
ree hours in mint or rosemary tea. Or,

Take of rhatany powder, one ounce; ginger powder,
ie drachm; conserve of orange-peel, one ounce. Mix,
id with simple syrup, form into an electuary. A tea-
oonful, or the size of a nutmeg, to be taken every
our in the absence of the hot fit of ague. Or,

'Take of rhatany powder, and the aromatic tincture
rhatany, of each six drachms; pure water, seven
unces. Mix. Three large table-spoonfuls to be taken
ery three hours.

OINTMENTS.

Spermaceti Ointment.

'Take of spermaceti, one ounce; white wax, two
achms; olive oil, three ounces. To be melted toge-
er over a slow fire, then put aside to cool, when it
ll be fit for use.

'This is a very cooling ointment for excoriations and
ner frettings of the skin; for recent cuts, and heal-
g blisters.

Yellow Basilicon Ointment.

'Take of yellow resin, yellow wax, of each four
unces; olive oil, a quarter of a pint. First melt the
sin and wax over a slow fire; then add the oil, and
nen well mixed put it aside to cool.

'This is an excellent application for promoting an
althy discharge from ill-conditioned, or foul ulcers.
should be applied thinly spread on lint of the size
the ulcer. From its stimulating property, it is a
y improper application for recent cuts.

Tar Ointment.

Take of common tar, mutton suet, of each equal
ts. Melt them over a gentle fire, and strain for use.

This ointment generally proves very successful in the scald head, and old leprous affections of the skin. It should be rubbed over the affected parts night and morning.

Sulphur Ointment.

Take of sulphur, in fine powder, one ounce; sal-ammoniac, half a drachm; hog's-lard, three ounces; essence of lemon, one drachm. Mix well together.—This is, no doubt, the most certain and safe remedy for the itch we are acquainted with. It should be well rubbed over the parts affected every night and morning. If properly used, it generally cures the disease in two days.

Saturnine Ointment.

Take of spermaceti ointment, five ounces; Goulard's extract of lead, a quarter of an ounce. The ointment to be first rendered soft by rubbing it in a mortar, when the extract is to be added by drops, at the same time continuing the rubbing: when well blended it is fit for use.

This ointment is used for the same purpose as the spermaceti ointment, than which it is more successful in assuaging inflammation; it is however less safe.

Brown, or Turner's Cerate.

Take of prepared calamine, yellow wax, of each four ounces; olive-oil, half a pint. Melt the wax with the oil over a gentle fire; then place it in a cool situation, and when it begins to thicken, mix with it the calamine, by passing it through a sieve, and stirring it till cold. The use of this cerate is well known.

Ointment for the Piles.

Take of spermaceti ointment, one ounce; Goulard's extract of lead, fifteen drops; laudanum, one drachm. Mix well together.

Savin Ointment.

Take of fresh savin, freed from the stalks, and bruised; yellow wax, of each three ounces; hog's-lard, half a pound. First melt the wax in the lard

over a gentle fire; then add the savin, continue the simmering till the herb is nearly crimp; then strain it through a sieve for use.

This ointment is well calculated for keeping up a purulent discharge from a blistered surface; which it does as effectually and with much less irritation than the ointment of blistering flies. A white coat is apt to form on the discharging surface, and must be removed occasionally so as to allow the ointment to be applied to the sore.

PILLS.

A PILL is a form of medicine generally composed of drugs which operate in small doses, and whose nauseous and offensive taste or smell require them to be concealed from the palate. A pill should be of the consistence of a firm paste, a round form, and not exceed five grains in weight, unless the composition be ponderous.

Compound Colocynth Pill.

The mass for this pill is kept ready prepared by all chemists and apothecaries.

This pill is well known under the name of *Pill Coccia.* In the dose of fifteen grains, it is a very useful and active purgative medicine; and in cases of *obstinate* costiveness, and when a *speedy* evacuation of the intestines is required, it will answer better than any other of the kind. It likewise affords an excellent purgative medicine for head-ache, arising from a determination of blood to the brain, and especially if it be from a suppression of the piles; but in case of piles being present, the milder purgative, as the aperient salts, will answer best.

Asafetida Pill.

The mass of this pill is kept ready prepared by chemists and apothecaries.

Ten grains of the mass formed into two pills, taken two or three times a day, have been found very ser-

viceable in hysterical, hypochondriacal, nervous, asthmatic, and flatulent complaints.

Gum Pill.

This pill, principally composed of asafetida, myrrh, and galbanum, is kept ready for use by chemists and apothecaries. It is very similar in its effects to the preceding pill, and it is taken in the same dose and for the same purpose.

Rufus's Pill.

This pill, composed of aloes, myrrh, and saffron, is kept ready for use by all respectable chemists and apothecaries. In the dose of fifteen grains, in three pills, it is a pleasant, cordial, aperient medicine. It is generally given in hypochondriacal cases; but when the object is speedily and effectually to unload the intestines, the compound colocynth-pill is preferable.

Squill Pill.

This pill may generally be obtained ready prepared at the shop of a respectable chemist or apothecary.

Taken from ten to fifteen grains twice a day, it is a powerful medicine in promoting expectoration, and increasing the secretion of urine; hence it is a valuable medicine in *chronic* coughs and asthmatic affections, attended with *viscid* phlegm, and in dropsical complaints.

The squill pill, combined with calomel, is an efficacious and valuable remedy for dropsy, either of the chest, belly, or extremities, in the proportions recommended for dropsy.

Ecphractic Pill.

Take of socotrine aloes, two scruples; myrrh, two drachms; extract of gentian, salt of steel, of each one drachm; simple syrup, sufficient to form a mass. To be divided into sixty-four pills, two of which are to be taken twice a day. This is an excellent composition for the retention of the menses, commonly termed the *green sickness*, particularly when it is attended with costiveness. It is also a good remedy for indigestion, accompanied with a sluggish state of the bowels.

Aromatic Pill.

This pill is kept ready prepared by chemists and pothecaries. In the dose of from fifteen to twenty rains, in three or four pills, it is a pleasant purgative. t is particularly adapted to cold phlegmatic habits nd decayed constitutions. It warms the stomach, romotes digestion, and strengthens the tone of the iscera.

Asthmatic Pills.

Take of squill-pill, two drachms; gum-asafetida, one rachm. Mix, and divide into thirty-six pills. Two be taken twice or thrice a day.

Pills for Dropsy.

Take of squill-pill, two drachms; prepared calomel, en grains; gamboge powder, a scruple. Mix well ogether, and divide into thirty-six pills. Three to be aken twice a day, with a wine-glassful of the tonic ixture.

Pills for the Gravel.

Take of prepared natron, (that has been coarsely ounded, and exposed to a warm dry air, till it has rumbled into a white powder,) two drachms; Spaish soap, two drachms. With oil of juniper make nto sixty pills; of which three are to be taken three mes a day.

When the mephitic alkaline water disagrees with the atient, this form will afford an excellent substitute.

Tonic Pills.

Take of essential salt of bark, one drachm; salt of teel, a scruple; gum-olibanum, one drachm. With imple syrup make a mass, and divide into thirty-six ills. Three to be taken twice a day, for fluor albus i. *e.* the whites) and gleet.

Bilious Pills.

Take of rhubarb, two drachms; calomel, half a rachm; essence of peppermint, ten drops; with a

little syrup make into thirty pills. Three to be taken every third morning, with a wine-glassful of the solution of Epsom salt.

Cathartic Pills.

Take of compound colocynth-pill, one drachm; calomel, fifteen grains. Mix, and form into fifteen pills. Three to be taken for a dose, in obstinate constipation of the bowels, and redundancy of bile.

Plummer's Pill.

Take of prepared calomel, and golden sulphur of antimony, of each one drachm; extract of liquorice, one drachm. Rub the sulphur and calomel well together, then add the extract: with simple syrup form a mass, and divide into sixty pills, one of which may be taken twice a day.

This pill, in conjunction with the decoction of the woods, has been found very beneficial in those obstinate leprous affections of the skin generally termed *Land-scurvy*.

Turpentine Pills with Rhubarb.

Take of Venice turpentine, two drachms; rhubarb powder, one drachm. Mix, and divide into thirty-six pills. Three of these pills are to be taken every day, in cases of fluor albus, gleets, or such discharges as proceed from an affection of the prostate gland.

Both the ingredients which compose these pills have the property of passing very readily into the urine, and thus a local effect is produced. A greater flow of urine is also occasioned by the stimulating action of the turpentine on the kidneys; and in this way the irritating qualities of the urine becomes less in proportion to its quantity.

Pills of Vitriolated Zinc.

Take of vitriolated zinc, two drachms; Venice turpentine, a sufficient quantity to form into a mass, to be divided into sixty pills.

These also are applicable to the cases last mentioned, and may be taken in the dose of one or two, night and morning.

POWDERS.

Hiera Picra.

Take of socotrine aloes, in fine powder, four ounces; white canella, in fine powder, six drachms. To be well mixed together.

This is an excellent purgative medicine in the dose of from fifteen to twenty grains. It is more unpleasant to take than the pill coccia, over which it has no advantage.

Aromatic Powder.

Take of cinnamon, smaller cardamom seeds, Jamaica ginger, of each one ounce. To be reduced to a fine powder, and kept in a stopper-bottle for use.

This powder, in the quantity of from five to twenty grains, is a warm stomachic medicine. It is seldom employed alone, but in conjunction with some bitter powder, as columbo, camomile, Peruvian bark, &c.

Compound Powder of Asarabacca.

Take of the leaves of asarabacca dried, ditto marjoram, flowers of lavender, of each one ounce. Rub them together to a fine powder.

This powder is a very pleasant and efficacious cephalic snuff, and its effects are more beneficial than the common herb snuffs. Five or six grains snuffed up the nostrils at bed-time, will operate the succeeding day, by inducing frequent sneezing, and a copious discharge from the nostrils; in this manner it has proved of great advantage in obstinate head-ache, and inflammation of the eyes resisting other modes of cure. It is necessary during its operation to avoid exposure to cold.

Compound Powder of Chalk.

Take of prepared chalk, four ounces; nutmeg powder, half a drachm; cinnamon powder, one drachm and a half. To be well mixed together.

This is a very useful medicine in correcting acidity, and strengthening the stomach and bowels; and hence it has been found particularly serviceable in restraining looseness arising from acidity or laxity of the bowels. Twenty grains may be taken in a glass of water, with three drops of the essence of cinnamon, or in the cretaceous mixture.

An emetic of ipecacuan, or a dose of rhubarb, should precede the use of astringent medicines, in cases of looseness, particularly when it arises from acrid humours in the stomach and intestines.

Purgings attendant on inflammatory fevers should not be suddenly checked, unless the necessity of it be indicated by the reduced state of the patient.

The cretaceous powders, for correcting acidity in the stomach, answers as well as magnesia; they, however, differ essentially in their effects after their union with an acid, the latter acting as a purge, and the former rendering the body costive: hence, when acidity is attended with costiveness, magnesia should be preferred; and when with a contrary state of the bowels, the cretaceous mixture.

Dover's Sweating Powder.

Take of ipecacuan powder, opium powder, of each one drachm; sal-polychrest powder, one ounce. To be well mixed together.

This powder is recommended as an effectual remedy in rheumatism by Dr. Dover, and repeated experience has confirmed its reputation, not only in rheumatism, but also in other diseases where it is necessary to produce perspiration, in which it will succeed after the antimonial, or James's powder, has failed. The dose is from five to twenty grains, according as the patient's stomach will bear it. It is proper to avoid much drinking *immediately* after taking it, otherwise it may be rejected by vomiting before the desired effect be produced.

Basilic Powder.

Take of scammony, prepared calomel, cream of tartar, and jalap powder, of each equal parts. The

scammony and cream of tartar to be ground together in a marble mortar till reduced to a fine powder, when the other articles are to be added.

Basilic powder is a medicine of very ancient repute, as a remedy for every species of worms lodged in the alimentary canal, and is, without doubt, a safe vermifuge. It may be given to children of all ages, in a little honey or currant-jelly, every second or third morning for a fortnight, in the dose of two grains to a child of one year old, increasing one grain for every year, to the age of twenty. The tonic mixture should be taken in the intermediate times, and continued for some time after the evacuation of the worms. It is also a very excellent alterative purge for children, to empty the bowels of slime and crudities, and at the same time is a good security against worms and their effects, which so frequently produce the most alarming disorders in children. It is likewise a very good purgative medicine for children after the measles, and other eruptive fevers, that require the use of aperient medicines, and for rickety children with enlarged bowels.

The basilic powder, in the dose of twenty or twenty-five grains, is likewise a valuable purgative medicine in dropsical cases; in which it will answer much better than large doses of cream of tartar, or any other cathartic, when a considerable discharge is required from the system.

Stomachic Powder.

Take of camomile-flowers, powdered, half an ounce; ginger-powder, one drachm; dried natron, in powder, half a drachm.

This composition, in the dose of fifteen or twenty grains, in water, two or three times a day, is a very cheap and excellent remedy for indigestion, flatulence, heartburn, and such other diseases as evidently arise from weakness of the digestive organs.

Emetic Powder.

Take of ipecacuan powder, ten or fifteen grains; emetic tartar, one grain. Mix.

Diuretic Powder.

Take of purified nitre, one drachm; gum-arabic, three drachms. Mix, and divide equally into twelve papers. One to be taken three times a day, with a draught of barley-water, for strangury, heat of urine, and gravel.

Worm Powder. See *Basilic Powder.*

Tonic Powder.

Take of Peruvian bark powder, or rhatany root powder, one ounce; Jamaica ginger powder, half a drachm. Mix, and divide into twelve papers. One to be taken every hour, or every other hour, in intermittent fevers.

Tooth Powder.

The following powder will be found pleasant and efficacious. It cleans the teeth, preserves them from decaying, and renders the gums peculiarly hard and firm.

Take of mastich, and myrrh, each two drachms; cassia, one drachm, finely powdered, and mixed together.

SYRUPS.

A Syrup is a solution of sugar in water, previously impregnated by decoction, or infusion, with the medicinal virtues of some vegetable from whence it is named. This form, although much employed by the ancient physicians, is now seldom prescribed, but with a view of covering the ill taste of some nauseous medicine, for which purpose the addition of a little white sugar would answer as well. Syrups are bad preparations for children, on account of the sugar disordering the stomach and bowels by becoming acid.

The following syrups are kept by chemists, more for domestic use than for regular practice:

Simple syrup, syrup of garlic, syrup of marshmallow-root, syrup of ginger, syrup of orange-peel, syrup

of clove July flowers, syrup of saffron, syrup of white poppies, syrup of red poppies, syrup of buckthorn, syrup of red rose, syrup of squills, syrup of tolu, and syrup of violets.

TINCTURES.

Tinctures in general contain the virtues of vegetable matter; but a great objection occurs to their frequent use, as leading patients to a habit of tippling; and the incautious conduct of prescribing such forms, has been, it may be feared, the ruin of many a patient. Watery infusions are, therefore preferable, when proper, in domestic practice.

Tincture of Aloes.

Take of socotrine aloes, powdered, half an ounce; extract of liquorice, an ounce and a half; French brandy, one pint. Digest in a sand-bath, now and then shaking the vessel, until the extract be dissolved, and then strain.

In cases where we wish for the operation of the aloes alone, this is perhaps one of the best formulæ under which it can be exhibited in a fluid state.

Compound Tincture of Aloes.

Take of socotrine aloes, and saffron, of each three ounces; tincture of myrrh, two pints. Digest for eight days and strain.

This medicine is highly recommended, and not unreservedly, as a warm stimulant and aperient. It strengthens the stomach, evacuates the intestinal canal, and promotes the natural secretions in general. Its continued use has frequently done much service in cachetic and icteric cases, uterine obstructions, and other similar disorders; particularly in cold, pale, phlegmatic habits. The dose may be from twenty drops, to a tea-spoonful or more, twice or thrice a day.

Aromatic Tincture, or Compound Tincture of Cinnamon.

Take of cinnamon, six drachms; lesser cardamom-seeds, one ounce; long pepper, two drachms; brandy,

two pounds and a half. Macerate for seven days, and filtre the tincture.

This tincture is too hot to be given without dilution. A tea-spoonful or two may be given in wine, or any other convenient vehicle, in langour, weakness of the stomach, flatulencies, and other similar complaints.

Tincture of Asafetida.

Take of asafetida, four ounces; rectified spirit of wine and brandy, of each one pint. Digest with a gentle heat for three days, and strain.

This tincture possesses the virtues of the asafetida itself; and may be given in doses of from ten drops to fifty or sixty.

Tincture of Orange-peel.

Take of dried orange-peel, four ounces; brandy, two pounds. Digest for three days, and strain.

This tincture is an agreeable bitter, flavoured at the same time with the essential oil of the orange-peel.

Tincture of Balsam of Peru.

Take of balsam of Peru, four ounces; rectified spirit of wine, one pint. Digest until the balsam be dissolved.

This tincture is at present but little employed, unless in composition, either under this or any other form.

Tincture of Rhatany Root.

Take of rhatany root, bruised, three ounces; proof spirit of wine, two pints. Digest for eight days, and strain.

Compound Tincture of Rhatany Root.

Take of rhatany root, bruised, three ounces; dried orange-peel, two ounces; Virginian snake-root, half an ounce; saffron, one drachm; rectified spirit of wine, two pints. Digest for twelve days, and strain.

Aromatic Tincture of Rhatany Root.

Take of rhatany root, bruised, three ounces; ca-

nella bark, bruised, two ounces; proof spirit of wine, two pints. Digest for ten days, and strain.

Tincture of Balsam of Tolu.

Take of balsam of tolu, one ounce and a half; rectified spirit of wine, one pint. Digest until the balsam be dissolved, and strain.

This solution of balsam of tolu possesses all the virtues of the balsam itself. It may be taken internally, with the several intentions for which that balsam is proper, to the quantity of a tea-spoonful or two, in any convenient vehicle. Mixed with the plain syrup of sugar, it forms an elegant balsamic syrup.

Compound Tincture of Benzoin.

Take of benzoin, three ounces; storax, strained, two ounces; balsam of tolu, one ounce; socotrine aloes, half an ounce; rectified spirit of wine, two pints. Digest with a gentle heat for three days, and strain.

The compound tincture of benzoin, or traumatic balsam, stands highly recommended as an external application, for cleansing and healing wounds and ulcers, for discussing old tumors, allaying gouty, rheumatic, and other old pains and aches; and likewise internally, for warming and strengthening the stomach and intestines, expelling flatulencies, and relieving colicky complaints. Outwardly, it is applied cold on the part with a feather; but, from its stimulating properties, it is improper in recent cuts. Inwardly, from twenty to thirty drops may be taken at a time, in wine, or with a little sugar.

Tincture of Cantharides, or Spanish Flies.

Take of bruised cantharides, two drachms; cochineal, powdered, half a drachm; proof spirit, one pint and a half. Digest for eight days, and strain.

The usual dose of this tincture is from ten to twenty drops, which may be taken in a glass of water, or any other more agreeable liquor, twice a day; and increased by two or three drops at a time, according to

the effect. The tincture of cantharides has of late been highly celebrated as a successful remedy in diabetic cases, and hooping cough.

Tincture of Cardamoms.

Take of lesser cardamon-seeds, husked and bruised, three ounces; brandy, two pints, Digest for eight days, and strain.

Tincture of cardamoms has been in use for a considerable time. It is a pleasant, warm cordial; and may be taken in any proper vehicle, in doses of from a drachm to a spoonful or two.

Compound Tincture of Cardamoms.

Take of lesser cardamom-seeds, husked, caraway-seeds, cochineal, each powdered, two drachms; cinnamon, bruised, half an ounce; raisins, stoned, four ounces; brandy, two pints. Digest for fourteen days, and strain.

This tincture contains so small a portion of cardamoms as to be hardly entitled to derive its name from that article.

Tincture of Cascarilla.

Take of the bark of cascarilla, powdered, four ounces; brandy, two pints. Digest with a gentle heat for eight days, and strain.

This tincture is recommended, in the quantity of two tea-spoonfuls, two or three times a day, in a glass of water, in cases of indigestion.

Tincture of Castor.

Take of Russia castor, powdered, two ounces; brandy, two pints. Digest for ten days, and strain.

The tincture of castor is recommended in most kinds of nervour and hysteric disorders: the dose is from twenty drops to forty, fifty, or more.

Tincture of Catechu.

Take of catechu, three ounces; cinnamon, bruised, two ounces; proof spirit, two pints. Digest for eight days, and strain.

This tincture is of service in chronic looseness, uterine fluxes, and other disorders, where mild astringent medicines are indicated. Two or three tea-spoonfuls may be taken two or three times a day.

Tincture of Cinnamon.

Take of cinnamon, bruised, one ounce and a half; brandy, one pint. Digest for ten days, and strain.

The tincture of cinnamon possesses the astringent virtues of the cinnamon, as well as its aromatic cordial ones.

Compound Tincture of Cinnamon.

Take of cinnamon, bruised, six drachms; lesser cardamom-seeds, husked, three drachms; long pepper, ginger, of each, in powder, two drachms; proof spirit, two pints. Digest for eight days, and strain.

From the different articles which this tincture contains, it must necessarily be of a more stimulating nature than the former.

Tincture of Columbo.

Take of columbo-root, powdered, two ounces and a half; brandy, two pints. Digest for eight days, and strain.

This tincture may be advantageously employed against bilious vomitings, and those different stomachic complaints, in which the columbo has been found useful.

Tincture of Peruvian Bark.

Take of Peruvian bark, powdered, six ounces; brandy, two pints. Digest with a gentle heat for eight days, and strain.

This tincture may be given in doses of from a tea-spoonful to half an ounce, or an ounce, according to the different purposes it is intended to answer.

Compound or Huxham's Tincture of Peruvian Bark.

Take of Peruvian bark, powdered, two ounces; outer peel of Seville orange, dried, one ounce and a

half; Virginian snake-root, bruised, three drachms; saffron, one drachm; cochineal, powdered, two scruples; brandy, a pint and a half. Digest for fourteen days, and strain.

As a corroborant and stomachic, it is given in doses of two or three drachms; but when employed for the cure of intermittents, it must be taken to a greater extent.

Tincture of Saffron.

Take of English saffron, one ounce; proof spirit, fifteen ounces. After digesting them for five days, let the tincture be strained through paper.

Tincture of Muriated Iron.

Take of the rust of iron, half a pound; muriatic acid, three pounds; rectified spirit of wine, three pints. Pour the muriatic acid on the rust of iron in a glass vessel; and shake the mixture now and then during three days. Set it by, that the feces may subside; then pour off the liquor; evaporate this to one pint, and when cold, add to it the vinous spirit.

From ten to twenty drops of this tincture may be taken twice or thrice a day, in any proper vehicle.

Ammoniac Tincture of Iron.

Take of ammoniacal iron, four ounces; proof spirit, one pint. Digest, and strain.

This is a valuable preparation of iron; from twenty to forty drops may be taken three times a day in water

Tincture of Galbanum.

Take of galbanum, cut in small pieces, two ounces; proof spirit, two pints. Digest in a gentle heat for eight days, and strain.

This tincture may be successfully employed in cases of flatulence and hysteria, where its effects are immediately required, particularly with those who cannot bear asafetida.

Compound Tincture of Gentian.

Take of gentian-root, sliced and bruised, two ounces;

outer dried peel of Seville oranges, one ounce; lesser cardamom-seeds, husked and bruised, half an ounce; proof spirit, two pints. Digest for eight days, and strain.

This tincture, in the dose of a tea-spoonful, is a powerful stomachic medicine.

Tincture of Guaiacum.

Take of gum-guaiacum, four ounces; compound spirit of ammonia, a pint and a half. Digest for three days, and strain.

These are very elegant and efficacious tinctures; the volatile spirit excellently dissolving the gum, and at the same time promoting its medicinal virtue. In rheumatic cases, a tea-spoonful, or half a table-spoonful, taken every morning and evening, in any convenient article, particularly in milk, has proved of singular service.

Tincture of Black Hellebore.

Take of black hellebore-root, in coarse powder, four ounces; cochineal powder, two scruples; proof spirit, two pints. Digest with a gentle heat for eight days, and strain.

This tincture has been much recommended in uterine obstructions; in sanguine constitutions, where chalybeates would have been hurtful, it has succeeded in exciting the menstrual evacuations, and removing the ill consequences of their suppression. A tea-spoonful of the tincture may be taken twice a day in warm water, or any other convenient vehicle.

Tincture of Jalap.

Take of powdered jalap-root, eight ounces; proof spirit, two pints. Digest with a gentle heat for eight days, and strain. The dose, a desert-spoonful.

Tincture of Gum Kino.

Take of gum-kino, two ounces; proof spirit, a pound and a half. Digest for eight days, and strain.

This is one of the best forms under which this medicine can be exhibited in obstinate diarrhœas and in

cases of lientery. It was first recommended by Dr. Fothergill, and is now often prescribed in chronic diarrhœas, fluxes, &c. From one to two tea-spoonfuls may be taken three or four times in twenty-four hours, in barley-water, linseed-tea, or simple cinnamom-water.

Compound Spirit of Lavender.

Take of spirit of lavender, three pints; spirit of rosemary, one pint; cinnamon, and nutmegs, bruised, of each, half an ounce; red saunders, one ounce. Digest for ten days, and strain.

This spirit is a grateful, reviving cordial, and has been long held in great esteem, under the name of *Palsy Drops*, in all kinds of languors, weakness of the nerves, and decays of the aged.

Tincture of Myrrh.

Take of myrrh, bruised, three ounces; brandy, a pint and a half; rectified spirit of wine, half a pint. Digest with a gentle heat for eight days, and strain.

Tincture of myrrh is recommended internally for warming the habit, strengthening the solids, removing obstructions, and resisting putrefaction. The dose is from fifteen drops to forty or more.

Tincture of Opium, or Laudanum.

Take of hard purified opium, powdered, ten drachms; brandy, one pint. Digest for ten days, and strain.

Paregoric Elixir.

Take of hard purified opium, flowers of benzoin, of each, one drachm; camphor, two scruples; oil of aniseed, one drachm; brandy, two pints. Digest for ten days, and strain.

This tincture contributes to allay the tickling which provokes frequent coughing; and at the same time generally gives greater liberty of breathing: the opium procures a temporary relief from the symptoms, while the other ingredients tend to remove the cause, and prevent their return. It is given to children against

the chincough, &c. in doses of from five drops to twenty; to adults, from twenty to an hundred.

Tincture of Rhubarb.

Take of rhubarb, sliced, two ounces; lesser cardamom-seeds, bruised, half an ounce; saffron, two drachms; brandy, two pints. Digest for eight days, and strain.

Bitter Tincture of Rhubarb.

Take of rhubarb, two ounces; gentian-root, half an ounce; Virginian snake-root, one drachm; brandy, two pounds and a half. Digest for seven days, and strain.

This tincture is a valuable stomachic medicine, in the dose of two tea-spoonfuls, in cases of indigestion, attended with a sluggish state of the intestines.

Tincture of Rhubarb with Aloes.

(COMMONLY CALLED SACRED ELIXIR.)

Take of rhubarb, ten drachms; socotrine aloes, six drachms; lesser cardamom-seeds, half an ounce; brandy, two pounds and a half. Digest for seven days, and strain.

This preparation is very much employed as a warming cordial purge, in the dose of a table-spoonful.

Compound Tincture of Savin.

Take of extract of savin, one ounce; tincture of castor, one pint; tincture of myrrh, half a pint. Digest till the extract of savin be dissolved, and then strain.

This preparation may be given in doses of from five drops to twenty or thirty, or more, in pennyroyal-water, or any other suitable vehicle, in cases of obstruction of the menses, and fainting or convulsive fits.

Tincture of Squills.

Take of squills, fresh dried, four ounces; proof spirit, two pints. Digest for eight days, and pour off the liquor. Dose from twenty to forty drops.

Tincture of Senna, or Daffy's Elixir.

Take of senna, one pound; caraway-seeds, bruised, one ounce and a half; lesser cardamom-seeds, bruised, half an ounce; raisins, stoned, sixteen ounces; brandy, one gallon. Digest for fourteen days, and strain.

This tincture often relieves flatulent complaints and colic, where the common cordials have little effect. The dose is from one to two ounces.

Tincture of Snake Root.

Take of Virginian snake-root, three ounces; proof spirit, two pints. Digest for eight days, and strain.

This tincture may be taken to the quantity of a spoonful or more every five or six hours.

Tincture of Valerian.

Take of the root of wild valerian, in coarse powder, four ounces; brandy, two pints. Digest with a gentle heat for eight days, and strain.

This tincture proves of a deep colour, and considerably strong of the valerian, though it has not been found to answer so well in the cure of epileptic disorders as the root in substance, exhibited in the form of powder or bolus. The dose of this tincture is from half a spoonful to a spoonful, or more, twice or thrice a day.

Ammoniated Tincture of Valerian.

Take of the root of wild valerian, in coarse powder, four ounces; compound spirit of ammonia, two pints. Digest for eight days, and strain.

Aromatic Acid of Vitriol,

(COMMONLY CALLED ACID ELIXIR OF VITRIOL.)

Take of rectified spirit of wine, two pounds; drop into it by little and little six ounces of vitriolic acid. Digest the mixture with a very gentle heat, in a close vessel, for three days; and then add, of cinnamon, an ounce and a half; ginger, one ounce. Digest again, in a close vessel, for six days; and then filter the tincture through paper in a glass funnel.

This is a valuable medicine in weakness and relaxation of the stomach, and decays of constitution, particularly in those which proceed from irregularities which are accompanied with slow febrile symptoms, or which follow the suppression of intermittents. It frequently succeeds after bitters and aromatics had availed nothing.

Aromatic Spirit of Vitriolic Ether,

(COMMONLY CALLED SWEET ELIXIR OF VITRIOL.)

This is made of the same aromatics, and in the same manner, as the aromatic tincture; except that, in the place of the vinous spirit, spirit of vitriolic ether is employed.

This is designed for persons whose stomachs are too weak to bear the foregoing acid elixir; to the taste it is gratefully aromatic, without any perceptible acidity.

Tincture of Ginger.

Take of ginger, bruised, four ounces; proof spirit, two pounds. Digest in a gentle heat for eight days, and strain.

This simple tincture of ginger is a warm cordial, and is rather intended as a useful addition, in the quantity of a drachm or two, to purging mixtures.

Tincture of Bitter Apple.

Take of colocynth, cut small, and freed from the seeds, one ounce; aniseed, one drachm; proof spirit, fourteen ounces. Macerate for three days, and strain through paper.

This tincture, in the dose of two tea-spoonfuls, is a powerful purgative.

Tincture of Quassia.

Take of quassia, sliced, two ounces; proof spirit, two pounds and a half. Digest for three days, and then strain through paper.

The dose is a tea-spoonful in a glass of water two or three times a day, in weakness of the stomach.

Tincture of Lac.

Take of gum-lac, powdered, one ounce; myrrh, three drachms; spirit of scurvy-glass, a pint and a half. Digest in a sand-heat for three days; after which, strain off the tincture for use.

This tincture is principally employed for strengthening the gums, and in bleedings and scorbutic ulcerations of them.

Tincture of Amber.

This tincture has been recommended in a variety of affections, particularly those of the nervous kind, as hysterical and epileptic complaints. It may be taken in doses of from a few drops to the extent of a tea-spoonful in a glass of wine, or any similar vehicle, three times a day.

Take of yellow amber, powdered, one ounce; vitriolic ether, four ounces. Digest for three days in a vessel accurately closed, frequently shaking the vessel, and then strain through paper.

ANATOMICAL PLATES.

VIEW OF THE VISCERA OF THE ABDOMEN.

A The Liver
B Gall-bladder
C Pancreas
D Spleen
E One of the Venal Glands
FF Kidneys
GG Ureters
H Bladder, represented distended with Urine
I Rectum Intestinum
K Aorta
L Vena Cava
M Four Spermatic Vessels

FRONT VIEW OF THE HUMAN FIGURE, TO EXHIBIT ITS MUSCULAR STRUCTURE.

A The Frontal Muscle
B Epicranius
C Raiser up of the Ear
D Origin of the Platysma
E Mastoid Muscle
F Platysma Myoides
G Pectoral Muscle
H Deltoid
I Biceps
J Brachialis internus
L Pronator
M Triceps
N Supinator
O Radialis
P Long Palmaris
Q Latissimus Dorsi
R Serratus
S Rectus
T Obliquus descendens
U Tensor of the Thigh
V Great Glutæus
W Rectus of the Thigh
X Sartorius
Y Vastus externus, or external Vastus
Z Vastus internus, or internal Vastus
a Long Abductor of the Thigh
b Graciles
c Pectineus
d Internal Iliac
e Gasterocnemius
f Long Peroneus
g Soleus
h Ligaments, by which the Tendons are covered in the confines of the Leg and back of the Foot

HINDER VIEW OF THE FIGURE.

A The Epicranius
B Orbicular Muscle of the Eye
C Mastoid
D Trapesius
E Deltoid
F Triceps
G Supinator
H Brachialis
I Long Abductor of the Thumb
J Ligament which binds down the Tendon of the Ulnaris
K Ulnaris
L Infra Spinati
M Greater Teres
N Lesser Teres
O Profundus
P Olecranon
R Ulnaris
S Latissimus Dorsi
T Obliquus descendens
U Longissimus Dorsi
V Great Glutæus
W Middle Glutæus
X Vastus externus
Y Biceps
Z Semi-tendinous Muscle
a Part of the Sartorius
b The Graciles
c, d } The Gasterocnemius
e The Vastus internus
f Soleus
g Short Peroneus

FRONT VIEW OF THE SKELETON.

A The Parietal Bone
B Frontal Bone
C Temporal Bone
D Occipital Bone
E Mamillary Process
F Cheek Bone
G Lower Jaw Bone
H Vertebræ of the Neck
I Collar Bones
J Scapula
K Humeral Bone
L Radius
M Ulna
N Carpal Bones
O Metacarpal Bones
P Phalanges of the Fingers
Q Pectoral Bone
R Ribs

S The Vertebræ of the Back and Loins
T Sacrum
U Ischium } commonly called the Pel-
V Ilium } vis, or Bason
W Femoral Bone
X Patetta or Knee Bone
Y Tibia
Z Fibula
a Heel Bone
b Tarsal Bones
c Metatarsal Bones
d Phalanges of the Toes

ARTERIAL SYSTEM.

1 The Aorta, cut from its Origin at the left Ventricle of the Heart
A Three semi-lunar Valves
2 The Trunk of the Great Coronal Artery
3 Ligamentum Arteriosum
4 4 Subclavian Arteries
5 5 The Carotids
6 6 Vertebral Arteries
7 7 Temporal Arteries
8 8 Occipital Arteries
9 9 Contortions of the Carotids
10 Pituitary Gland
11 11 Ophthalmic Arteries
12 Contortions of the Vertebræ
13 13 Ramifications of the Arteries within the Skull
14 14 Mamillary Arteries
15 15 External Arteries of the Cubit, which makes the Pulses near the wrists
16 Descending Trunk of the Aorta
17 17 Intercostal Arteries
18 Cœliac Artery
19 19 19 Hepatic Arteries
20 Epiploic Arteries
21 Upper Coronary Artery of the Stomach
22 Pyloric Artery
23 Lower Coronary Artery
24 Phrenic Arteries
25 Trunk of the Upper Mysenteric Artery
26 Vertebral Arteries of the Loins
27 27 Spermatic Arteries
28 Arteries of the Sacrum
29 Iliac Arteries
30 30 Iliacus externus
31 31 Iliacus internus
32 32 Epigastric Arteries
33 Arteries of the Penis
34 34 Crural Arteries

THE BASIS OF THE BRAIN, AND PART OF THE MEDULLA OBLONGATA.

AA The Anterior Lobes of the Brain
BB Posterior Lobes
CC Cerebellum
DD Lateral Sinuses
EE Vertebral Arteries
F Vertebral Sinus
GG Dura Mater, taken off from the Spinal Marrow on the right Side, but remaining on the left
1,2,3,&c. Ten Pairs of Nerves belonging to the Brain, and the first seven of the Spinal Marrow
a The Foramen, opening from the Infundibulum into the Pituitary Gland
bb Two white Protuberances behind the Infundibulum
cc Two trunks of the Carotid Arteries cut off where they begin to run between the fore and hinder Lobes of the Brain
dd Two Arteries joining the Carotids, with the Cervical Artery
ee Two other large Branches of the same Artery
f Branches of the Carotid Artery
g Cervical Artery, composed of two Trunks, hh, of the Vertebral Arteries, which runs along the Annular Protuberances
i Spinal Artery
kk Spinal Accessory Nerve
ll Crura of the Medulla Oblongata
mm Annular Protuberance of the Pons Varolii
n Corpora Pyramidalia, being part of the Caudex Medularis
o That part of the same which is called Corpus Olivaro.
p The fore Branch of the Carotid Artery
qq Little Branches of Arteries, which help to constitute the Plexus Choroides
rrr Branches of Arteries from the Cervical Artery, dispersed through the Annular Protuberance
ss Part of the Second Process of the Cerebellum.

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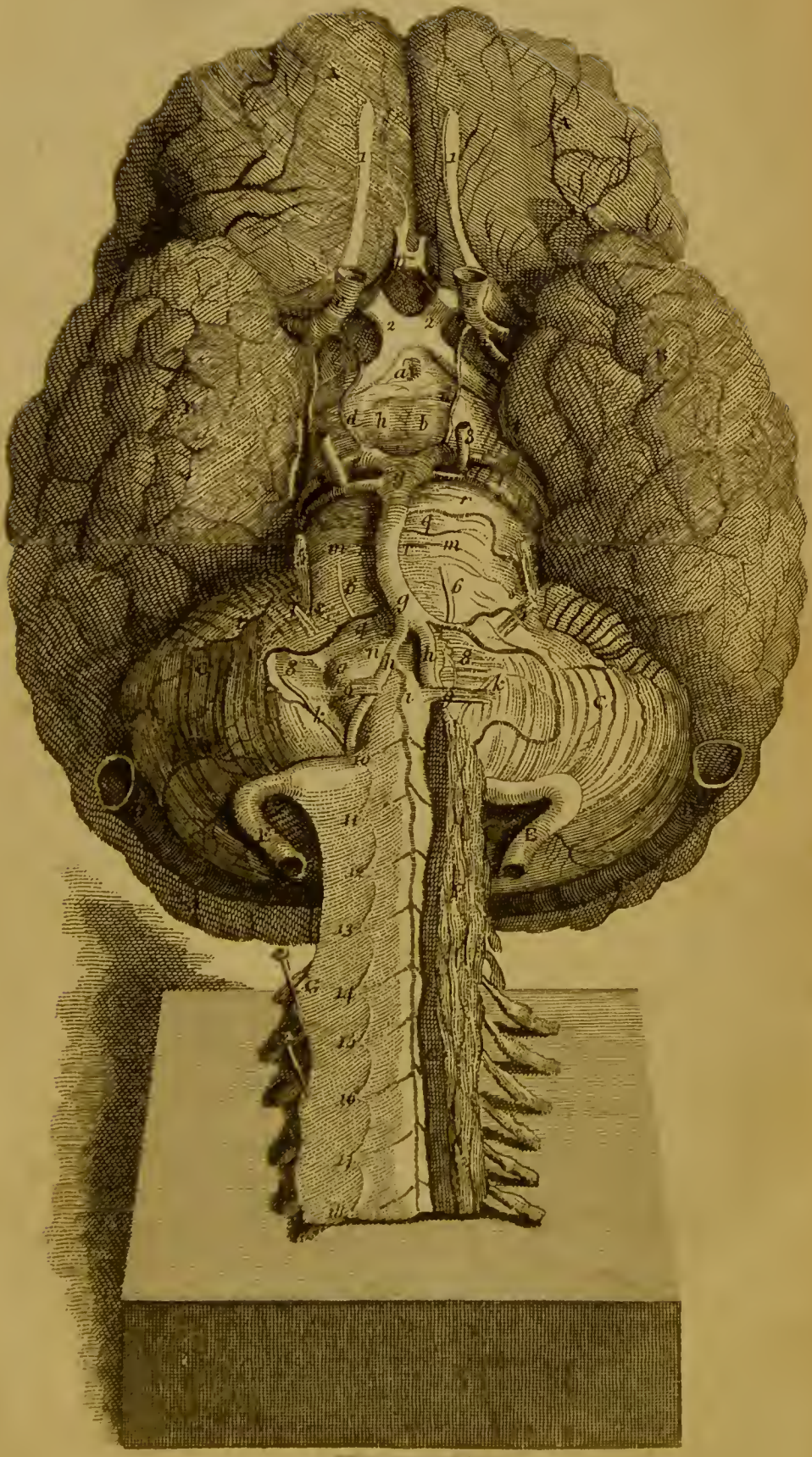
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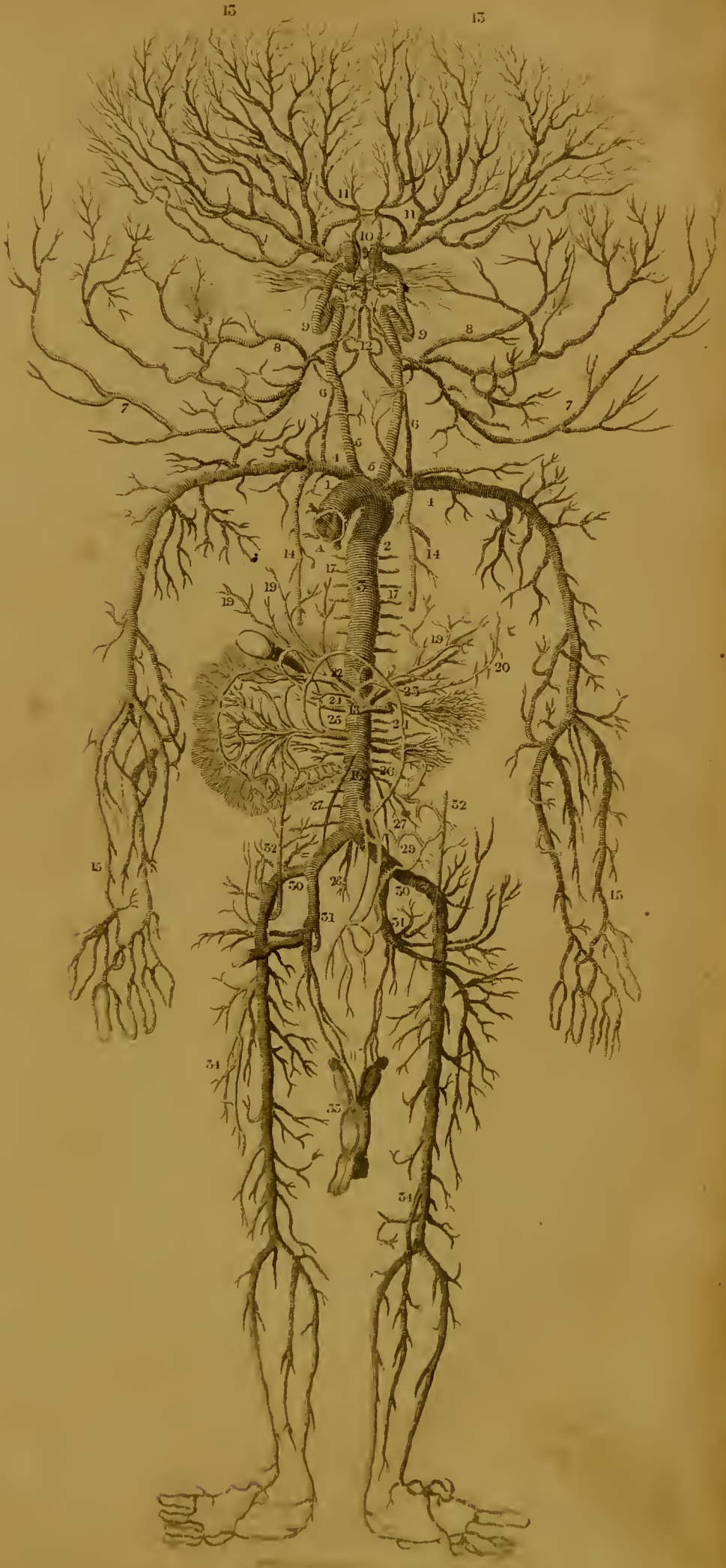
TO THE BINDER.

The Plates in Nos. 2 and 4, to face each other between pages 626 and 627. The Plates in Nos. 6, 8, 10, and 12, to face page 627; and those in Nos. 16 and 18, page 628.



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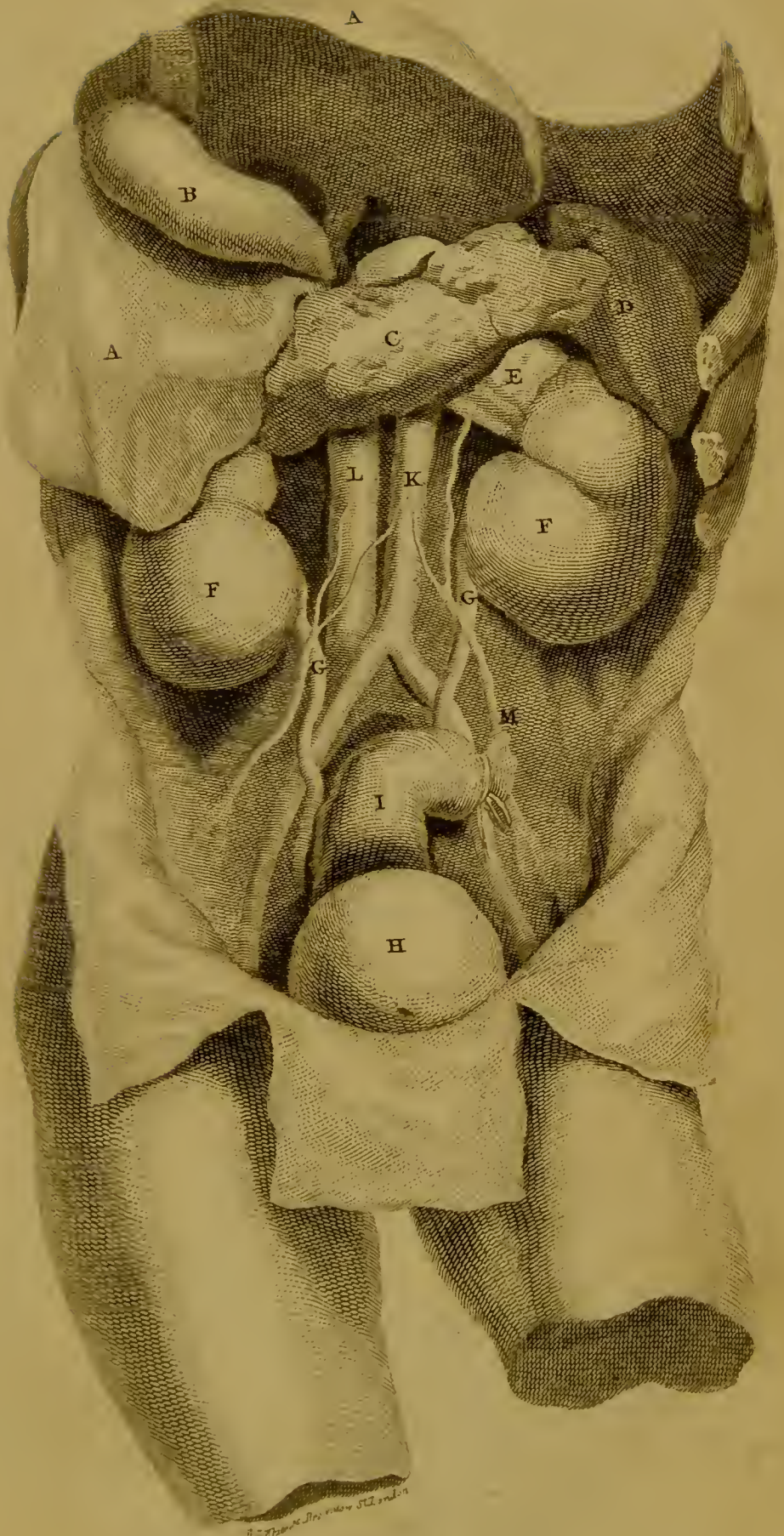


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